

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
**AGENDA ITEM REQUEST**  
for Proposed Rulemaking

**AGENDA REQUESTED:** November 15, 2017

**DATE OF REQUEST:** October 27, 2017

**INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED:** Sherry Davis, TR Team Rule/Agenda Coordinator, (512) 239-2141

**CAPTION: Docket No. 2016-1919-RUL.** Consideration for publication of, and hearing on, proposed amendments to Sections 334.2, 334.4, 334.6, 334.7, 334.10, 334.19, 334.42, 334.45 - 334.52, 334.54, 334.55, 334.72, 334.74, 334.123 - 334.125, 334.127, 334.208, 334.407, 334.424, 334.491, 334.496, 334.499, 334.602, 334.603, and 334.605 of 30 TAC Chapter 334, Underground and Aboveground Storage Tanks.

The proposed rulemaking would include federal rule updates required by the United States Environmental Protection Agency (EPA) pertaining to underground storage tanks (USTs). In addition to updates to EPA's UST regulations, this rulemaking also proposes minor rule revisions relating to fee on delivery of petroleum products and the funding of the Petroleum Storage Tank Remediation account (House Bill 7, 84th Texas Legislature, Regular Session, which amended Texas Water Code (TWC), Section 26.3574(b-1)), and rule revisions related to the fee on the delivery of certain petroleum products (Senate Bill 1557, 85th Texas Legislature, Regular Session, which amended TWC, Section 26.3574(a) - (i)). (Cynthia Gandee, Isaac Ta) (Rule Project No. 2016-019-334-CE)

Ramiro Garcia, Jr.  
\_\_\_\_\_  
**Deputy Director**

Susan Jablonski  
\_\_\_\_\_  
**Division Director**

Sherry L. Davis  
\_\_\_\_\_  
**Agenda Coordinator**

Copy to CCC Secretary? NO YES X

# Texas Commission on Environmental Quality

## Interoffice Memorandum

**To:** Commissioners **Date:** October 27, 2017

**Thru:** Bridget C. Bohac, Chief Clerk  
Richard A. Hyde, P.E., Executive Director

**From:** Ramiro Garcia, Jr., Deputy Director  
Office of Compliance and Enforcement

**Docket No.:** 2016-1919-RUL

**Subject:** Commission Approval for Proposed Rulemaking  
Chapter 334, Underground and Aboveground Storage Tanks  
HB 7 (84th), SB 1557 (85th), and Implementation of Federal Petroleum  
Storage Tank Updates  
Rule Project No. 2016-019-334-CE

### **Background and reasons for the rulemaking:**

In order for the State of Texas to be consistent with federal underground storage tank (UST) requirements, the Texas Commission on Environmental Quality (TCEQ, agency, or commission) incorporates specific United States Environmental Protection Agency (EPA) rule changes into state rules after promulgation.

In 1988, the EPA promulgated UST regulations (40 Code of Federal Regulations (CFR) Part 280), which set minimum standards for new tanks and required owners and operators of existing tanks to upgrade, replace, or remove those not in compliance. That same year, the EPA also promulgated regulations for state program approval (40 CFR Part 281), which allows states to operate a UST regulatory program in lieu of federal regulation. EPA has not significantly changed these regulations since their adoption in 1988.

On July 15, 2015, the EPA published updates to the UST regulations and the state program approval regulations. The EPA's stated goal of revising the 1988 federal UST regulations was to establish federal requirements similar to key provisions of the Energy Policy Act of 2005 (EPAct). The revisions increase the emphasis on proper operation and maintenance of UST equipment, address UST systems deferred in the 1988 regulations, and include current technologies and practices.

Separate from the federally mandated issues above, this rulemaking also proposes minor rule revisions relating to the fee on delivery of petroleum products and the funding of the Petroleum Storage Tank Remediation (PSTR) account, which are required by the Texas Water Code (TWC). More specifically, House Bill (HB) 7, 84th Texas Legislature, amended TWC, §26.3574(b-1) to clarify the calculation method of the petroleum products delivery fee, which funds the PSTR account. The proposed rule change will reflect the fee reduction changes that were implemented in 2015 through the *Texas Register* and the Texas Comptroller's rules, but were not reflected in the TCEQ's rules.

Additional minor rule revisions related to the fee on the delivery of certain petroleum products are proposed to implement the amendment to TWC, §26.3574, made by Senate Bill (SB) 1557, 85th Texas Legislature. The revisions include changing the term "operator of a bulk facility" to "supplier" such that the "supplier" would now collect the fees on delivery of a petroleum product.

Re: Docket No. 2016-1919-RUL

**Scope of the rulemaking:**

**A.) Summary of what the rulemaking will do:**

The proposed rulemaking would include rule revisions required by the EPA pertaining to USTs.

The revisions include:

- adding periodic operation and maintenance requirements for UST systems;
- adding requirements to ensure UST system compatibility before storing certain biofuel blends; and
- updating codes of practice.

In addition to updates to EPA's UST regulations, this rulemaking also proposes minor rule revisions relating to the fee on delivery of petroleum products and the funding of the PSTR account (HB 7, 84th Texas Legislature, which amended TWC, §26.3574(b-1)), and rule revisions related to the fee on the delivery of certain petroleum products (SB 1557, 85th Texas Legislature, which amended TWC, §26.3574(a) - (i)).

**B.) Scope required by federal regulations or state statutes:**

This rulemaking will update 30 TAC Chapter 334 to include federal rule revisions required by the EPA for the State of Texas to reapply for state program approval; updates to fee on delivery of petroleum products (HB 7, 84th Texas Legislature, amended TWC, §26.3574(b-1)); and updates the fee on the delivery of certain petroleum products (SB 1557, 85th Texas Legislature, amended TWC, §26.3574(a) - (i)).

**C.) Additional staff recommendations that are not required by federal rule or state statute:**

None.

**Statutory authority:**

- TWC, §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment;
- TWC, §5.103 and §5.105, which authorize the commission to adopt rules and policies necessary to carry out its responsibilities and duties under TWC, §5.013;
- TWC, §26.011, which requires the commission to control the quality of water by rule;
- TWC, §26.039, which states that activities which are inherently or potentially capable of causing or resulting in the spillage or accidental discharge of waste or other substances and which pose serious or significant threats of pollution are subject to reasonable rules establishing safety and preventive measures which the commission may adopt or issue;
- TWC, §26.341, which states that the policy of this state is to maintain and protect the quality of groundwater and surface water resources in the state from certain substances in underground and aboveground storage tanks (ASTs) that may pollute groundwater and surface water resources, and requires the use of

Re: Docket No. 2016-1919-RUL

all reasonable methods, including risk-based corrective action to implement this policy;

- TWC, §26.3441, requires standards and rules concerning ASTs adopted by the commission to be as stringent as federal requirements
- TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding UST and ASTs;
- TWC, §26.347, which requires the commission to adopt performance standards, including design, construction, installation, release detection, and compatibility standards for existing and new UST systems;
- TWC, §26.3475, which requires UST systems to comply with commission requirements for tank release detection equipment and spill and overfill equipment
- TWC, §26.348, which directs the commission to adopt standards of performance for maintaining a leak detection system;
- TWC, §26.351, which directs the commission to adopt rules establishing the requirements for taking corrective action in response to a release from a UST or an AST;
- TWC, §26.357, requires standards and rules concerning USTs adopted by the commission to be at least as stringent as federal requirements; and
- TWC, §26.3574(b-1), which requires the commission to set the amount of the petroleum products delivery fee.

**Effect on the:**

**A.) Regulated community:**

The regulatory revisions generally focus on additional testing and inspection of existing equipment. The proposed revisions do not reflect large-scale equipment investments or significant changes from existing state rules to operations at the facility level. Because the State of Texas has already incorporated many of the federal revisions to the state requirements, the impact to the regulated community is expected to be minimized.

**B.) Public:**

No direct effect on the public is anticipated.

**C.) Agency programs:**

By proposing these revisions, the commission can pursue renewal of state program approval from the EPA.

**Stakeholder meetings:**

An early, informal meeting was requested by industry representatives in order to begin dialogue on the new federal rule revisions. This meeting was held on May 16, 2016.

On May 23, 2017, a stakeholder meeting was held with interested parties. Many of the attendants had concerns about the new requirements. Most concerns focused on the added costs associated with the proposed rules.

Re: Docket No. 2016-1919-RUL

Specifically, stakeholders voiced dissatisfaction with the new periodic testing requirements for containment sumps and overspill protection equipment. The stakeholders' concern stemmed from the added cost of testing UST systems and the allowable methods to dispose of potentially contaminated water used in testing.

In response to this concern, the commission has added a low liquid level testing method which can be used for containment sump tightness testing. This allows the regulated community to meet requirements for containment sump tightness testing, while reducing the volume of water they are responsible for disposing.

Additionally, the commission has added language which allows for the reuse of water in subsequent tests when making use of the low liquid level testing method described previously. Again, this was in response to stakeholder concerns aimed at costs associated with periodic testing requirements for containment sumps and overfill protection equipment.

In order to accommodate the low liquid level testing method and allow for the reuse of water for subsequent testing, the commission is proposing amendments to General Permit Number TXG830000 (Project No. 2017-020-OTH-NR) which currently authorizes the disposal of petroleum contaminated wastewater. The proposed amendments will expand the applicability of the general permit to include petroleum contaminated wastewater that is generated as a result of testing containment sumps and overfill protection equipment. Allowing this wastewater to be disposed of in accordance with the general permit, rather than an individual permit, will reduce the costs associated with compliance testing and avoid the costs and delays that would result if members of the regulated community were required to obtain an individual wastewater discharge permit.

A formal public hearing is tentatively planned for January 9, 2018, at agency headquarters in Austin, Texas following rule proposal by the commission.

**Potential controversial concerns and legislative interest:**

This rulemaking implements updates to fee on delivery of petroleum products (HB 7, 84th Texas Legislature, amended TWC, §26.3574(b-1)), which has been previously implemented, and updates the fee on the delivery of certain petroleum products (SB 1557, 85th Texas Legislature, amended TWC, §26.3574(a) - (i)). There are no known controversial concerns or additional legislative interest at this time.

**Will this rulemaking affect any current policies or require development of new policies?**

The rulemaking will create additional requirements in Texas rules and may cause the scope of a typical inspection to expand to include the new requirements.

**What are the consequences if this rulemaking does not go forward? Are there alternatives to rulemaking?**

The State of Texas currently operates an independent UST regulatory program in lieu of federal regulation. However, Texas is required to reapply for state program approval no later than October 13, 2018. While the commission may opt to incorporate all, some, or

Commissioners  
Page 5  
October 27, 2017

Re: Docket No. 2016-1919-RUL

none of the EPA federal revisions into the state rules, state program approval may not be granted by the EPA.

**Key points in the proposal rulemaking schedule:**

**Anticipated proposal date:** November 15, 2017

**Anticipated *Texas Register* publication date:** December 1, 2017

**Anticipated public hearing date:** January 9, 2018

**Anticipated public comment period:** December 1, 2017 - January 9, 2018

**Anticipated adoption date:** May 9, 2018

**Agency contacts:**

Cynthia Gandee, Rule Project Manager, Compliance and Enforcement, (512) 239-0179

Isaac Ta, Staff Attorney, (512) 239-0683

Patricia Durón, Texas Register Rule/Agenda Coordinator, (512) 239-6807

**Attachments:**

1. *Federal Register*, EPA 40 CFR Parts 280 and 281, Revising Underground Storage Tank Regulations - Revisions to Existing, Requirements and New Requirements for Secondary Containment and Operator Training; Final Rule Volume 80 No. 135, pages 41566 - 41683)
2. House Bill 7 (84th Texas Legislative Session)
3. Senate Bill 1557 (85th Texas Legislative Session)

cc: Chief Clerk, 2 copies  
Executive Director's Office  
Erin Chancellor  
Stephen Tatum  
Jim Rizk  
Office of General Counsel  
Cynthia Gandee  
Patricia Durón

Rule Project No. 2016-019-334-CE

Executive Summary Attachment 1

Federal Register, EPA 40 CFR Parts 280 and 281, Revising Underground Storage Tank Regulations—Revisions to Existing, Requirements and New Requirements for Secondary Containment and Operator Training; Final Rule Volume 80 No. 135, pages 41566 - 41683



# FEDERAL REGISTER

---

Vol. 80

Wednesday,

No. 135

July 15, 2015

---

Part II

## Environmental Protection Agency

---

40 CFR Parts 280 and 281

Revising Underground Storage Tank Regulations—Revisions to Existing Requirements and New Requirements for Secondary Containment and Operator Training; Final Rule



**ENVIRONMENTAL PROTECTION  
AGENCY**

**40 CFR Parts 280 and 281**

[EPA-HQ-UST-2011-0301; FRL 9913-64-OSWER]

RIN 2050-AG46

**Revising Underground Storage Tank Regulations—Revisions to Existing Requirements and New Requirements for Secondary Containment and Operator Training**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA or the Agency) is making certain revisions to the 1988 underground storage tank (UST) regulation and to the 1988 state program approval (SPA) regulation. These changes establish Federal requirements that are similar to key portions of the Energy Policy Act of 2005 (EPAct); they also update the 1988 UST and SPA regulations. Changes to the regulations include: Adding secondary containment requirements for new and replaced tanks and piping; adding operator training requirements; adding periodic operation and maintenance requirements for UST systems; addressing UST systems deferred in the 1988 UST regulation; adding new release prevention and detection technologies; updating codes of practice; making editorial corrections and technical amendments; and updating state program approval requirements to incorporate these new changes. EPA thinks these changes will protect human health and the environment by reducing the number of releases to the environment and quickly detecting releases, if they occur.

**DATES:** This rule is effective October 13, 2015.

**ADDRESSES:** EPA established a docket for this action under Docket ID No. EPA-HQ-UST-2011-0301. All documents in the docket are listed on the [www.regulations.gov](http://www.regulations.gov) Web site. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available

either electronically in [www.regulations.gov](http://www.regulations.gov) or in paper copy at the OSWER Docket, EPA/DC, WJC West Building, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. The telephone number for the Public Reading Room is 202-566-1744, and the telephone number for the OSWER Docket is 202-566-0270.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth McDermott, OSWER/OUST (5401P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460; telephone number: 703-603-7175; email: [mcdermott.elizabeth@epa.gov](mailto:mcdermott.elizabeth@epa.gov).

**SUPPLEMENTARY INFORMATION:**

**Table of Contents**

- I. General Information
  - Does this action apply to me?
- II. Authority
- III. Background
  - A. Changes to the UST Regulations
  - B. History of the UST Laws and Regulations
  - C. Potential Impact of This Regulation
  - D. EPA's Process in Deciding Which Changes To Incorporate in the Regulations
  - E. Implementation Timeframe
- IV. Revisions to the Requirements for Owners and Operators of Underground Storage Tank Systems
  - A. Establishing Federal Requirements for Operator Training and Secondary Containment
    - 1. Operator Training
    - 2. Secondary Containment
  - B. Additional Requirements for Operation and Maintenance
    - 1. Walkthrough Inspections
    - 2. Spill Prevention Equipment Tests
    - 3. Overfill Prevention Equipment Inspections
    - 4. Secondary Containment Tests
    - 5. Release Detection Equipment Tests
  - C. Addressing Deferrals
    - 1. UST Systems Storing Fuel Solely for Use by Emergency Power Generators—Require Release Detection
    - 2. Airport Hydrant Fuel Distribution Systems and UST Systems With Field-Constructed Tanks
    - 3. Wastewater Treatment Tank Systems That Are Not Part of a Wastewater Treatment Facility Regulated Under Sections 402 or 307(b) of the Clean Water Act
    - 4. USTs Containing Radioactive Material and Emergency Generator UST Systems at Nuclear Power Generation Facilities Regulated by the Nuclear Regulatory Commission
  - D. Other Changes

- 1. Changes to Overfill Prevention Equipment Requirements
- 2. Internal Linings That Fail the Periodic Lining Inspection and Cannot Be Repaired
- 3. Notification
- 4. Compatibility
- 5. Improving Repairs
- 6. Vapor Monitoring and Groundwater Monitoring
- 7. Interstitial Monitoring Results, Including Interstitial Alarms, Under Subpart E
- E. General Updates
  - 1. Incorporate Newer Technologies
  - 2. Updates to Codes of Practice Listed in the UST Regulation
  - 3. Updates To Remove Old Upgrade and Implementation Deadlines
  - 4. Editorial Corrections and Technical Amendments
- F. Alternative Options EPA Considered
- V. Updates to State Program Approval Requirements
- VI. Overview of Estimated Costs and Benefits
- VII. Statutory and Executive Orders
  - A. Executive Order 12866: Regulatory Planning and Overview and Executive Order 13563: Improving Regulation and Regulatory Review
  - B. Paperwork Reduction Act
  - C. Regulatory Flexibility Act
  - D. Unfunded Mandates Reform Act
  - E. Executive Order 13132: Federalism
  - F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
  - G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
  - H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
  - I. National Technology Transfer and Advancement Act
  - J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
  - K. Congressional Review Act

**I. General Information**

*Does this action apply to me?*

In the table below, EPA is providing a list of potentially affected entities using North American Industry Classification System (NAICS) codes. However, this final action may affect other entities not listed below. The Agency's goal with this section is to provide a guide for readers to consider regarding entities that potentially could be affected by this action. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

## INDUSTRY SECTORS POTENTIALLY AFFECTED BY THE FINAL REGULATION

Industry sector	NAICS code
Retail Motor Fuel Sales .....	447.
Commercial (wholesale trade, retail trade, accommodation, and food services) .....	42, 44–45, 72 (excluding 447).
Institutional (hospitals only) .....	622.
Manufacturing .....	31–33.
Transportation (air, water, truck, transit, pipeline, and airport operations) .....	481, 483–486, 48811.
Communications And Utilities (wired telecommunications carriers; and electric power generation, transmission, and distribution) .....	5171, 2211.
Agriculture (crop and animal production) .....	111, 112.

## II. Authority

EPA is revising these regulations under the authority of sections 2002, 9001, 9002, 9003, 9004, 9005, 9006, 9007, 9010, and 9012 of the Solid Waste Disposal Act (SWDA) of 1965, as amended (commonly known as the Resource Conservation and Recovery Act (RCRA)) [42 U.S.C. 6912, 6991, 6991(a), 6991(b), 6991(c), 6991(d), 6991(e), 6991(f), 6991(i), and 6991(k)].

## III. Background

### A. Changes to the UST Regulations

After reviewing and incorporating comments received during the five month public comment period, EPA is finalizing certain changes to the 1988 UST regulation in 40 CFR part 280. EPA is also revising its SPA regulation in 40 CFR part 281 to incorporate the changes in 40 CFR part 280.

These revisions strengthen the 1988 UST regulation by increasing the emphasis on properly operating and maintaining equipment. The 1988 UST regulation required owners and operators to have spill, overflow, and release detection equipment in place for their UST systems, but did not require proper operation and maintenance for some of that equipment. For example, EPA required spill prevention equipment to capture drips and spills when the delivery hose is disconnected from the fill pipe, but did not require periodic testing of that equipment. These revisions require that UST equipment is operated and maintained properly, which will improve environmental protection. These revisions also acknowledge improvements in technology over the last 26 years, including the ability to detect releases from UST systems deferred in the 1988 UST regulation.

EPA is revising the 1988 UST regulation to:

- Establish federal requirements that are similar to certain key provisions of the Energy Policy Act of 2005;
- Ensure owners and operators properly operate and maintain their UST systems;

- Address UST systems deferred in the 1988 UST regulation;

- Include updates to current technology and codes of practices;

- Make technical and editorial corrections; and

- Update the SPA regulation to address the changes listed above.

In 1988, EPA first promulgated the UST regulation (40 CFR part 280) to prevent, detect, and clean up petroleum releases into the environment. The 1988 UST regulation required new UST systems to be designed, constructed, and installed to prevent releases; existing UST systems had to be upgraded to prevent releases. In addition, owners and operators were required to perform release detection, demonstrate financial responsibility, and clean up releases.

The Energy Policy Act of 2005 amended Subtitle I of SWDA, the statute that authorized the UST program. Key Energy Policy Act provisions (such as secondary containment and operator training) apply to all states and United States' territories, hereafter referred to as states, receiving federal Subtitle I money under SWDA, regardless of their state program approval status, but do not apply in Indian country. The United States has a unique legal relationship with federally recognized Indian tribes. This government to government relationship includes recognizing the rights of tribes as sovereign governments with the right to self-determination and acknowledging the federal government's trust responsibility to tribes. As a result, EPA directly implements the UST program in Indian country.

In order to establish federal UST requirements that are similar to the UST secondary containment and operator training requirements of the Energy Policy Act, EPA decided to revise the 1988 UST regulation. These revisions also fulfill objectives in EPA's August 2006 UST Tribal Strategy,<sup>1</sup> where both EPA and tribes recognized the importance of requirements that ensure parity in program implementation

among states and in Indian country. Secondary containment will reduce releases to the environment by containing them within a secondary area and detecting them before they reach the environment. Operator training will educate UST system operators and help them prevent releases by complying with the regulation and performing better operation and maintenance of their UST systems.

Since the beginning of the UST program, preventing petroleum and hazardous substance releases from UST systems into the environment has been one of the primary goals of the program. Although EPA and our partners have made significant progress in reducing the number of new releases, approximately 6,000 releases are discovered each year as of FY 2013.<sup>2</sup> Lack of proper operation and maintenance of UST systems is the main cause of new releases. Information on sources and causes of releases shows that releases from tanks are less common than they once were. However, releases from piping and spills and overfills associated with deliveries have emerged as more common problems. In addition, releases at the dispenser are one of the leading sources of releases. Finally, data show that release detection equipment is only detecting approximately 50 percent of releases it is designed to detect. These problems are partly due to improper operation and maintenance. See section IV.B, Additional Requirements for Operation and Maintenance for a more detailed discussion of problems.

EPA relied on two draft causes of releases studies to help support this final UST regulation. *Petroleum Releases at Underground Storage Tank Facilities in Florida* contains release data on 512 releases from new and

<sup>1</sup> 2006 Tribal Strategy, <http://epa.gov/oust/fedlaws/tribalst.htm>.

<sup>2</sup> Semi-Annual Report Of UST Performance Measures, End Of Fiscal Year 2013, <http://epa.gov/oust/cat/camarchv.htm>.

upgraded tanks in Florida.<sup>3</sup> The second draft study, *Evaluation of Releases from New and Upgraded Underground Storage Tank Systems*, contains release data on 580 releases from new and upgraded tanks in 23 states across the Northeast, South, and Central parts of the United States.<sup>4</sup> Taken together, these draft studies provide information on 1,092 releases in 24 of 50 states. The data in the two studies generally provide a representative sampling of releases across the United States, because nearly half of the states contributed to the studies. Both drafts were peer reviewed but never finalized because passage of the Energy Policy Act of 2005 required a reallocation of personnel and resources. Even though these studies were never finalized, the underlying data and calculations can be used to support this final UST regulation because that information did not change as a result of the peer review process. These studies are available in the docket for this final action.

Many USTs currently in the ground were upgraded to meet the spill, overfill, corrosion protection, and release detection requirements in the 1988 UST regulation. As these USTs continue to age, it is vital that we ensure they are still working as intended. These revisions to the 1988 UST regulation focus on ensuring equipment is working, rather than requiring UST owners and operators to replace or upgrade equipment already in place. The 1988 UST regulation requires owners and operators to use equipment that could help prevent releases. These revisions highlight the importance of operating and maintaining UST equipment so releases to the environment are prevented or quickly detected.

This final UST regulation addresses UST systems deferred in the 1988 UST regulation by removing the deferral and regulating UST systems with field-constructed tanks, airport hydrant fuel distribution systems that meet the UST definition, and UST systems storing fuel solely for use by emergency power generators. Note that aboveground storage tanks associated with UST systems with field-constructed tanks and airport hydrant fuel distribution systems that meet the UST definition are partially excluded in this final UST regulation. EPA is partially excluding wastewater treatment tank systems that are not part of a wastewater treatment

facility regulated under sections 402 or 307(b) of the Clean Water Act, USTs containing radioactive material, and emergency generator UST systems at nuclear power generation facilities regulated by the Nuclear Regulatory Commission. See section IV.C, Addressing Deferrals, for more information.

EPA is revising the 1988 SPA regulation (40 CFR part 281) to address the changes to 40 CFR part 280. By doing so, states will generally need to adopt the 40 CFR part 280 changes finalized today in order to obtain or retain SPA.

Please note that, although not a part of this final UST regulation, owners and operators may also be subject to other requirements related to underground storage tank systems. For example, EPA's Office of Air and Radiation has national emission standards for hazardous air pollutants for various source categories, including gasoline dispensing facilities (see 40 CFR part 63). These standards include some testing for UST systems, depending on the monthly throughput of the facility.

Finally, EPA allows owners and operators the flexibility to maintain either paper or electronic records to demonstrate compliance with this final UST regulation. EPA encourages owners and operators to maintain records electronically, which promotes innovation<sup>5</sup> and simplifies compliance by using 21st century technology tools.<sup>6</sup>

### B. History of the UST Laws and Regulations

In 1984, Congress responded to the increasing threat to groundwater posed from leaking USTs by adding Subtitle I to SWDA, commonly referred to as RCRA. Subtitle I of SWDA required EPA to develop a comprehensive regulatory program for USTs storing petroleum or certain hazardous substances, ensuring that the environment and human health are protected from UST releases. In 1986, Congress amended Subtitle I of SWDA and created the Leaking Underground Storage Tank Trust Fund to implement a cleanup program and pay for cleanups at sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action.

In 1988, EPA promulgated the UST regulation (40 CFR part 280), which set

minimum standards for new UST systems and required owners and operators of existing UST systems to upgrade, replace, or close them. In addition, after 1988 owners and operators were required to report and clean up releases from their USTs. The 1988 UST regulation set deadlines for owners and operators to meet those requirements by December 22, 1998. Owners and operators who chose to upgrade or replace had to ensure their UST systems included spill and overfill prevention equipment and were protected from corrosion. In addition, owners and operators were required to monitor their UST systems for releases using release detection (phased in through 1993, depending on when their UST systems were installed). Finally, owners and operators were required to demonstrate financial responsibility (phased in through 1998), which ensured they have financial resources to pay for cleaning up releases. EPA has not significantly changed the UST regulation since 1988.

In 1988, EPA also promulgated a regulation for state program approval (40 CFR part 281). Since states are the primary implementers of the UST program, EPA established a process where state programs could operate in lieu of the federal program, if states met certain requirements and obtained state program approval from EPA. The state program approval regulation describes minimum requirements states must meet so their programs can be approved and operate in lieu of the federal program.

In 2005, the Energy Policy Act further amended Subtitle I of SWDA. The Energy Policy Act required states receiving Subtitle I money from EPA to meet certain requirements. EPA developed grant guidelines for states regarding: Operator training; inspections; delivery prohibition; secondary containment; financial responsibility for manufacturers and installers; public record; and state compliance reports on government USTs.<sup>7</sup> The operator training and secondary containment requirements are two major pieces of the Energy Policy Act that did not apply in Indian country, but will now apply with publication of this final UST regulation.

### C. Potential Impact of This Regulation

This final UST regulation will improve parity in program implementation among states and in Indian country. This regulation is adding to the federal UST regulation

<sup>3</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>4</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

<sup>5</sup> Executive Order 13563, "Improving Regulation And Regulatory Review," Section 3, see <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf>.

<sup>6</sup> EPA Budget in Brief, February 2012, p. 4, see [http://yosemite.epa.gov/sab/sabproduct.nsf/2B686066C751F34A852579A4007023C2/\\$File/FY2013\\_BIB.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/2B686066C751F34A852579A4007023C2/$File/FY2013_BIB.pdf).

<sup>7</sup> EPA guidelines for the Energy Policy Act can be found at: [http://epa.gov/oust/fedlaws/epact\\_05.htm](http://epa.gov/oust/fedlaws/epact_05.htm).

certain requirements, which will apply in Indian country. These requirements are similar to the Energy Policy Act's operator training and secondary containment requirements, which apply in states receiving federal Subtitle I money from EPA. This action will also further strengthen protection of human health and the environment from UST releases by increasing the emphasis on proper operation and maintenance of release prevention and release detection equipment. These revisions also reflect improvements in technology that allow for the ability to prevent and quickly detect releases for many tank systems currently deferred from regulation under Subtitle I.

The regulatory changes finalized today impose costs to owners and operators of existing regulated UST systems and owners and operators of USTs deferred in the 1988 UST regulation, as well as costs associated

with state review of the changes. EPA prepared an analysis of the potential incremental costs and benefits associated with this action. This analysis is contained in the regulatory impact analysis (RIA) titled *Assessment of The Potential Costs, Benefits, and Other Impacts of the Final Revisions to EPA's Underground Storage Tank Regulations*, which is available in the docket for this action. Numerous commenters submitted input relaying their concerns about the costs and feasibility of specific requirements in the 2011 proposed UST regulation. EPA considered these comments and adjusted this final UST regulation to alleviate some of the burden on owners and operators. For example, EPA is requiring testing of spill prevention equipment every three years instead of annually. EPA also adjusted some of the assumptions underlying the RIA to reflect information received from

commenters. For example, several commenters provided water disposal costs associated with spill bucket testing. While the RIA for the 2011 proposed UST regulation assumed these costs were part of the spill prevention testing cost, EPA adjusted this assumption to reflect that, in some cases, owners and operators will incur additional costs to dispose of the water. A summary of these impacts is provided in section VI, Overview of Estimated Costs and Benefits, and in the table below. Note that due to data and resource constraints, EPA was unable to quantify or monetize some of this final UST regulation's benefits, including avoidance of human health risks, groundwater protection, ecological benefits, and mitigation of acute exposure events and large-scale releases (e.g., releases from airport hydrant distribution systems and UST systems with field-constructed tanks).

**COSTS AND BENEFITS OF THE UST REGULATION**  
[2012\$ Millions]\*

	7% discount rate	3% discount rate
Total Annual Social Costs .....	\$160 .....	\$160.
Total Annual Avoided Costs .....	\$310 .....	\$360.
	Range: (\$120–\$530) .....	Range: (\$130–\$610).
Net Cost (Savings) To Society .....	(\$160) .....	(\$200).
	Range: \$40–(\$370) .....	Range: \$25–(\$450).

\* Totals may not add up due to rounding

EPA also prepared a risk assessment for the 2011 proposed UST regulation titled *Risk Analysis to Support Potential Revisions to Underground Storage Tank (UST) Regulations*. The risk assessment examined potential impacts to groundwater and subsequent chemical transport, exposure, and risk. EPA decided not to spend resources to finalize the risk assessment through a formal peer review process, because the results from the risk assessment did not materially impact the RIA. Changes brought about by this final UST regulation are not expected to significantly alter these outcomes. The risk assessment developed for the 2011 proposed UST regulation is available for review in the docket.

*D. EPA's Process in Deciding Which Changes To Incorporate in the Regulations*

After the Energy Policy Act became law, EPA recognized a need to revise the 1988 UST regulation. The Energy Policy Act required additional measures to protect groundwater (either with secondary containment or financial responsibility for manufacturers and installers) and operator training

requirements in states receiving federal Subtitle I money from EPA. However, no similar requirements would apply in Indian country until EPA promulgates a regulation. Both EPA and tribes are committed to ensuring program parity between states and in Indian country, and this final UST regulation achieves this parity.

For the past 26 years, the 1988 UST regulation worked well to provide environmental protection. However, over two decades of experience implementing the UST program have shown there are a number of areas where EPA can improve the UST program and increase environmental protection. For example, updating the UST regulation to reflect current technologies and ensuring release prevention and release detection equipment are properly operated and maintained have surfaced as areas needing improvement and are included as part of this final UST regulation.

Throughout the regulatory development process, EPA embraced an open, inclusive, and transparent process so all UST stakeholders had an opportunity to share their ideas and concerns. EPA recognizes concerns

about costs to owners and operators and the importance of limiting requirements for retrofits. In developing this action, EPA reached out to stakeholders involved in all aspects of the tank program, provided multiple opportunities for sharing ideas, and kept stakeholders informed of progress.

As a result of the information collected during our extensive outreach to stakeholders, EPA published proposed regulations in the November 2011 **Federal Register**.<sup>8</sup> In order to ensure all stakeholders had an opportunity to comment, EPA provided a five month public comment period on the proposed UST and SPA regulations.

A number of commenters provided general input on EPA's 2011 proposal to update the UST and SPA regulations. Many commenters appreciated the extensive stakeholder outreach EPA conducted prior to drafting the proposed changes to the UST and SPA

<sup>8</sup> Proposed Rule Revising the Underground Storage Tanks Regulation. **Federal Register**. November 18, 2011. <https://www.federalregister.gov/articles/2011/11/18/2011-29293/revising-underground-storage-tank-regulations-revisions-to-existing-requirements-and-new>.

regulations. A few commenters believed EPA's outreach was not adequate. EPA conducted extensive stakeholder outreach before publishing the proposal; we held more than 100 meetings with stakeholders during the two years prior to issuing the 2011 proposed UST and SPA regulations. To further understand comments and concerns, EPA continued to meet with all interested stakeholders during and after the five month public comment period.

Most commenters expressed support for the general revisions to the 1988 UST and SPA regulations. They supported updating the regulations because technology has changed a great deal since the 1980s. Many commenters provided specific concerns on particular

topics in the 2011 proposed UST and SPA regulations. We discuss these comments throughout the preamble for this action. Several commenters opposed the changes to the regulations due to concerns about potential costs on owners, especially small businesses. A few commenters requested EPA withdraw the entire proposal and conduct a small business advocacy review panel under the Regulatory Flexibility Act. EPA carefully considered the potential impacts of the proposal on small businesses and determined that a small business panel was not required. EPA also considered all of the comments submitted during the public comment period, including

those concerns regarding the potential costs on small businesses, and worked to minimize those costs by making certain changes to the final regulations. EPA did not change this final UST and SPA regulations when comments were beyond the scope of the regulations or beyond EPA's statutory authority.

*E. Implementation Timeframe*

This final UST regulation aligns the implementation time frames for the new operator training, operation and maintenance, and previously deferred UST system requirements. The table below provides the implementation time frames for each of the new requirements.

IMPLEMENTATION TIME FRAMES FOR NEW REQUIREMENTS

New requirement	Implementation time frame
Flow restrictors in vent lines may no longer be used to meet the overfill prevention requirement at new installations and when an existing flow restrictor is replaced. Testing following a repair .....	Owners and operators must begin meeting these requirements on the effective date of this final UST regulation.
Closure of internally lined tanks that fail the internal lining inspection and cannot be repaired according to a code of practice. Notification of ownership changes. Demonstrating compatibility. For airport hydrant fuel distribution systems and UST systems with field-constructed tanks: <ul style="list-style-type: none"> <li>• Notification and financial responsibility.<sup>9</sup></li> <li>• Release reporting.</li> <li>• Closure.</li> </ul>	Owners and operators must begin meeting these requirements three years after the effective date of this final UST regulation.
Operator training ..... For previously deferred UST systems: <ul style="list-style-type: none"> <li>• Subpart D for UST systems that store fuel solely for use by emergency power generators .....</li> <li>• Subpart K (except notification, financial responsibility, release reporting, and closure) for airport hydrant fuel distribution systems and UST systems with field-constructed tanks.</li> </ul>	Owners and operators must begin meeting these requirements three years after the effective date of this final UST regulation.
Spill prevention equipment testing ..... Overfill prevention equipment inspections ..... Containment sump testing for sumps used for piping interstitial monitoring .....	Owners and operators must conduct the first test or inspection within three years after the effective date of this final UST regulation.
Release detection equipment testing. Walkthrough inspections.	

EPA proposed different implementation time frames for the various requirements, and for several requirements, a phased in approach based on tank age. Based on commenter input, EPA is not using the phased in approach and instead is requiring owners and operators to meet the requirements as described in the implementation table above. In addition, with one exception EPA is aligning implementation of the requirements in this final UST regulation to begin on the effective date of the UST regulation or three years after the effective date of the UST regulation. The requirements implemented on the effective date of the final UST regulation are those that either do not require significant

education and outreach or apply to new installations, repairs, or releases. EPA is allowing up to three years for owners and operators to implement the requirements that require significant outreach, equipment to be upgraded or installed (such as for previously deferred UST systems), or scheduling and testing. Three years allows ample time for implementing agencies to educate owners and operators about this new requirements and allows owners and operators to schedule testing. The exception to implementing the requirements immediately or in three years is that EPA is implementing the secondary containment requirement 180 days after the effective date of the UST regulation. The 180 day time frame allows flexibility for those owners and

operators who have concrete plans but have not yet applied for or obtained approvals or permits for a new UST system installation.

**IV. Revisions to the Requirements for Owners and Operators of Underground Storage Tank Systems**

The following sections describe this final UST regulation, starting with establishing new requirements for operator training and secondary containment. The next four sections

<sup>9</sup>Note that EPA is requiring owners and operators to also submit a one-time notification of existence for these UST systems within 3 years of the effective date of this final UST regulation. Owners and operators must demonstrate financial responsibility when they submit the one-time notification form

address changes to the 1988 UST regulation, organized by topic: Additional requirements for operation and maintenance; addressing UST systems deferred in the 1988 UST regulation; other changes to improve release prevention and release detection; and general updates to the 1988 UST regulation. Finally, there is a section describing alternative options considered.

#### A. Establishing Federal Requirements for Operator Training and Secondary Containment

##### 1. Operator Training

This final UST regulation adds a new subpart J, which contains operator training requirements to ensure properly trained individuals operate all regulated UST systems. The operator training provision of the Energy Policy Act of 2005 requires implementing agencies, as a condition of receiving federal Subtitle I money, develop state-specific training requirements for three classes of UST system operators. EPA issued grant guidelines that provide minimum requirements state operator training programs must include in order for states to continue receiving federal Subtitle I money.<sup>10</sup> All states are implementing or plan to implement operator training. The EPA did not specifically require operator training in Indian country. To bring UST systems in Indian country to the same level of protection as UST systems in states, this final UST regulation implements operator training requirements.

This final UST regulation closes the gap in coverage and ensures all operators designated as Class A, B, or C operators are trained according to their level of responsibility. Sufficiently training designated UST operators will increase compliance with regulatory requirements. In addition, operator training should decrease UST system releases by educating Class A, B, and C operators about their UST system requirements and result in greater protection of human health and the environment.

The operator training requirements in this final UST regulation are consistent with the requirements in EPA's operator training grant guidelines for states. In both, EPA establishes minimum operator training requirements, yet allows flexibility to tailor training programs for specific needs. This means that although there may be variations among operator training programs, all

Class A, B, and C operators will have a minimum level of knowledge about their UST system requirements.

##### Definitions

EPA is adding definitions for the three operator classes requiring training to distinguish them from the term operator originally defined in the 1988 UST regulation and maintained in this final UST regulation. Only if Class A, B, or C operators meet the definition of operator will they be subject to the same responsibilities and liabilities as an operator. EPA's definitions of Class A, B, and C operators do not relieve UST system owners and operators from legal responsibility for complying with the UST regulation. EPA based the three operator class definitions on duties each typically perform at UST facilities. Commenters on the 2011 proposed UST regulation indicated this final UST regulation should further differentiate Class A, B, and C operators from EPA's definition of operator. EPA agrees with commenters and is changing the title of § 280.241 to *Designation of Class A, B, and C operators* in the final UST regulation. This change correctly identifies the individuals who must be designated.

With the exception of the definition for the Class C operator, the operator class definitions remain unchanged from the 2011 proposed UST regulation. Several commenters pointed out that UST system owners and operators were, at the time of the 2011 proposed UST regulation, using contractors to perform Class C operator functions. Some commenters believed EPA was restricting the use of a contractor as a Class C operator since the proposal required a Class C operator to be an employee. EPA agrees; we are removing the restriction. EPA does not intend for the operator training requirements to restrict UST system owners and operators who are using contractors to operate their UST systems.

EPA added a definition for training program in the 2011 proposed UST regulation; we are modifying it in this final UST regulation. It is important that training programs for Class A, B, and C operators include both sharing information and evaluating knowledge. Several commenters requested clarification on how EPA expected knowledge to be verified. To address these requests, EPA changed the definition of training program by adding the phrase "*through testing, practical demonstration, or another approach acceptable to the implementing agency.*" This addition clarifies the definition and makes it consistent with

how the term is used in this final UST regulation.

##### How Operators Are Designated

This final UST regulation indicates how UST owners and operators are to designate the three operator classes for their facilities. UST owners and operators must designate at least one Class A and B operator at each facility. Class A and B operators may provide training to Class C operators, which should help UST owners and operators comply with this requirement. The UST owner and operator must ensure Class C operator training is documented.

Because Class C operators' duties typically require them to provide initial responses to emergencies, individuals who meet the Class C operator definition must be designated as such and trained in UST system emergency response—for example response to release detection alarms, spills, or releases. EPA received several comments on the 2011 proposed UST regulation requesting we require only one Class C operator be designated. The final UST regulation requires all individuals who meet the definition of Class C operator be trained. EPA maintains that the initial response to emergencies provided by this operator class is important to environmental protection. Requiring training for all individuals who meet the Class C operator definition will increase the likelihood UST system emergencies are quickly and appropriately addressed. This does not mean all workers need to be trained. For example, numerous workers at convenience stores do not control or monitor dispensing or sale of petroleum products, nor are they responsible for initial alarms. As a result, it is unnecessary to designate and train these individuals to meet Class C operator training requirements.

In addition, EPA acknowledges some readers might misinterpret that control of the dispensing operation described in the definition of the Class C operator applies to anyone fueling a vehicle. The level of UST system control and responsibility of individuals who must be trained excludes customers who are pumping product into their vehicles. For example, police officers using an unmanned facility would not have to meet Class C operator training requirements unless they are responsible, as specifically tasked by UST system owners and operators, to respond to emergencies and alarms caused by spills or releases from the UST system.

In the preamble to the 2011 proposed UST regulation, EPA acknowledged that many UST owners and operators might

<sup>10</sup> Grant Guidelines To States For Implementing The Operator Training Provision Of The Energy Policy Act Of 2005: [www.epa.gov/oust/fedlaws/optraing.htm](http://www.epa.gov/oust/fedlaws/optraing.htm).

want to designate one person at an UST facility to fulfill more than one class of operator. This final UST regulation allows one person to serve in multiple operator classes; however, that person must be trained for each class designated.

EPA is aware owners and operators rely on contractors to perform various UST system tasks, including those of Class A, B, and C operators. Because of the current use of contractors, EPA is allowing UST owners and operators to designate contractors as their Class A, B, and C operators, as long as they are trained in all areas for the class of operator designated. UST owners and operators must maintain documentation containing individual names (not just company names) of Class A, B, and C operators. This will allow implementing agencies to use individual names, rather than company names, when verifying training, retraining, and refresher training.

#### Who Must Be Trained

This final UST regulation requires training for designated Class A, B, and C operators at UST systems regulated under Subtitle I. This includes UST systems at attended and unattended facilities. An unattended UST facility means a Class A, B, or C operator might not be present when a facility is operating. Nonetheless, even for unattended UST facilities, owners and operators must designate and train Class A, B, and C operators.

#### Requirements for Operator Training

In the operator training grant guidelines for states, EPA based the three operator classes on duties each typically perform at UST facilities. Building on that, this final UST regulation requires each person designated in an operator class to participate in a specific training program or pass an examination comparable to the training program.

- For Class A operators, the training program must teach and evaluate their knowledge to make informed decisions regarding compliance and determine whether appropriate people are performing the operation, maintenance, and recordkeeping requirements for UST systems.

- For Class B operators, the training program must teach and evaluate their knowledge and skills to implement UST regulatory requirements on typical UST system components or site-specific equipment at UST facilities.

- For Class C operators, the training program must teach and evaluate their knowledge to take appropriate action, including notifying appropriate

authorities, in response to emergencies or alarms caused by spills or releases from UST systems.

- For all operator classes, the test is based on the training program and evaluates the minimum knowledge required for the operator class.

EPA received several comments on the description of Class C operator training requirements. One commenter suggested EPA should clarify the scope of emergencies a Class C operator is trained on. This final UST regulation requires Class C operators receive training on emergencies or alarms caused by spills or releases from operating UST systems. EPA also agrees with the comment regarding Class C operator training avoiding triggering the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard. HAZWOPER is the United States' recognized standard of safety requirements employers and their subcontractors or public sector responders must meet in order to conduct cleanups or emergency response operations. The level of training in this standard is beyond that which EPA intends for Class C operators. This final UST regulation modifies the training requirements for Class C operators and clarifies that appropriate actions Class C operators can take include notifying appropriate authorities.

For each class of operator, EPA considered developing specific training curricula prescribing length of training, topic areas, and trainer qualifications. Instead, this final UST regulation provides general criteria and requirements, because they provide flexibility while ensuring each class of operator is trained in a way that is comparable to EPA's operator training grant guidelines for states. EPA also modified the lists of training requirements for Class A and B operators from those identified in the 2011 proposal. The modifications made it clearer that new operation and maintenance inspection and testing, and compatibility demonstration requirements must be covered by operator training programs and comparable examinations.

EPA received several comments regarding restrictions on who may develop and administer the evaluation component of training, as well as restrictions on who may train Class A and B operators. This final UST regulation removes those restrictions because they could prohibit in-house and other potentially viable training. EPA supports a variety of operator training approaches. However, for retraining, EPA is revising language in

§ 280.244 to address conflicts of interest. This final UST regulation requires the training program or comparable examination to be developed or administered by an independent organization, the implementing agency, or a recognized authority. These retraining restrictions will help address any ineffective training approaches.

This final UST regulation allows a variety of ways to train operators, including classroom, computer based, hands on, and any combination of these. In lieu of completing a training program, Class A, B, or C operators can pass a comparable examination—such as classroom, Internet, or computer based—that meets the requirements for operator training described in this final UST regulation.

#### When Designated Operators Must Complete Operator Training

This final UST regulation requires UST owners and operators ensure all Class A, B, and C operators successfully complete a training program or a comparable examination within three years of the effective date of this final UST regulation. EPA proposed a phased in approach over three years, based on UST installation dates because older USTs potentially pose a greater risk to the environment and Class A, B, and C operators of those systems should be trained first. EPA received comments strongly indicating EPA should not phase in the operator training requirements. EPA agrees with commenters that it is less confusing to establish a single compliance date for this requirement. EPA is aligning implementation of operator training with the three year inspection requirement, which will make it easier for UST system owners and operators to comply.

Consistent with EPA's operator training grant guidelines, new operators designated after the three year implementation period must be trained as follows:

- Class A and B operators must be trained within 30 days of assuming duties
- Class C operators must be trained before they assume their duties because they must be able to immediately respond to emergencies

#### Retraining

Class A and B operators are responsible for ensuring their UST systems are compliant. Generally, Class A and B operators need to be retrained if the UST systems they are responsible for are determined to be out of compliance. At a minimum, retraining must cover those areas the

implementing agency determines are out of compliance. Retraining must be completed within 30 days of the implementing agency's final determination of noncompliance. This final UST regulation allows designated operators to take annual refresher training in lieu of retraining, as long as all training areas required by regulation are covered. Designated operators must be subject to the annual refresher training in place at the time of the violation.

This final UST regulation also allows implementing agencies to waive the retraining requirement. Unless waived, Class A and B operators must complete retraining according to § 280.244. EPA recommends the waiver be in writing. In waiving the requirement, EPA expects the implementing agency to consider factors such as the severity and areas of noncompliance. For example, retraining should not be required for equipment found inoperative during an inspection if one of the following apply: The owner and operator was unaware of the problem and operation and maintenance records indicate the equipment was operating during the most recent test or inspection; or the owner or operator is aware of the problem and has scheduled a timely repair. In those instances where UST system noncompliance violations do not warrant retraining, EPA encourages implementing agencies to provide information about the compliance issue to Class A and B operators so they are able to return their facilities to compliance. This provides greater flexibility for UST owners and operators to meet the retraining requirement. This final UST regulation is consistent with EPA's retraining requirement for noncompliance with significant operational compliance requirements and an annual refresher training allowance in our operator training grant guidelines for states.

This final UST regulation addresses comments about the terms independent trainer and independent organization in the retraining requirement at § 280.244. In this section, EPA is requiring that a training program or comparable examination be developed, administered, or both by an independent organization, the implementing agency, or recognized authority. A recognized authority includes, but is not limited to, tribes recognized by the U.S. Department of Interior Bureau of Indian Affairs. The development, administration, or both by an independent organization applies to all training approaches (classroom, Internet based, testing, etc.) and provides sufficient control for the implementing agency to address conflict

of interest and other concerns during retraining.

EPA considered requiring retraining when UST facilities change equipment, but decided this would be a significant burden on both the regulated community and implementing agencies. However, if an UST system is out of compliance because of an equipment change, EPA is requiring that UST owners and operators ensure Class A and B operators are retrained as discussed above.

#### Documentation

This final UST regulation requires owners and operators maintain records on currently designated Class A, B, and C operators, rather than records on all Class A, B, and C operators for the previous three years, as proposed. EPA is requiring owners and operators maintain basic information to document Class A, B, and C operators and confirm they are appropriately trained. For example, classroom training records must be signed by the trainer and include information about the training company; computer based training records do not require a signature, but must indicate the name of the training program and the Web address, if Internet based. This final UST regulation also modifies § 280.245(b)(1) by clarifying that the requirement for a record of training is also applicable when Class A or B operators train Class C operators. UST owners and operators must document verification of training or retraining for each class of operator. Owners and operators must maintain records verifying training or retraining as long as Class A, B, and C operators are designated at the facility.

#### 2. Secondary Containment

This final UST regulation adds new requirements for secondary containment and interstitial monitoring of new and replaced tanks and piping along with under-dispenser containment (UDC) of new dispenser systems. Data from release sites show a higher number of releases from single walled tanks and piping when compared to secondarily contained systems.<sup>11 12</sup> These new requirements will prevent regulated substances from reaching the environment and ensure a consistent level of environmental protection for regulated UST systems across the United States.

<sup>11</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>12</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

The Energy Policy Act of 2005 requires implementing agencies, as a condition of receiving federal Subtitle I money, implement additional measures to protect groundwater. Under EPA Act, implementing agencies' choices to protect groundwater are: Secondary containment (including UDC); or financial responsibility for manufacturers and installers (and installer certification). All states are implementing or plan to implement secondary containment. The EPA Act did not specifically require additional measures to protect groundwater in Indian country. To bring UST systems in Indian country to the same level of environmental protection as UST systems in states, this final UST regulation implements secondary containment requirements for new and replaced tanks and piping along with UDC underneath all new dispenser systems.

The EPA Act requires states that receive federal Subtitle I money (and choose the secondary containment option) to have secondary containment and UDC for tanks, piping, and dispensers only if they are installed or replaced within 1,000 feet of an existing community water system or potable drinking water well.<sup>13</sup> However, EPA is requiring all new and replaced tanks and piping to install secondary containment and new dispenser systems to install UDC for these reasons:

- Nearly all new and replaced tanks and piping are installed within 1,000 feet of an existing community water system (CWS) or potable drinking water well (PDWW). An UST listed with a commercial ownership type (*i.e.*, gas station) is typically located within 1,000 feet of an on-site well or public water line because nearly all commercially-owned facilities with USTs require water utilities in order to operate. In addition, privately owned facilities (*i.e.*, fleet fueling for non-marketers) are generally in close proximity to some type of water supply, given that these sites are typically combined with other functional operations (office, maintenance, manufacturing, etc.) and require water for restrooms, water fountains, shops, etc.;<sup>14</sup>
- Some implementing agencies that require secondary containment only

<sup>13</sup> Title XV, Subtitle B, Section 1530 of Energy Policy Act of 2005, Public Law 109-58, August 8, 2005.

<sup>14</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA-HQ-UST-2011-0301.



within 1,000 feet of a CWS or PDWW informed EPA that installations of single walled tanks or piping are not occurring; and

- Secondary containment for all new and replaced tanks and piping along with UDC for new dispenser systems will help protect other sensitive areas, such as designated source water protection areas, natural springs, and surface waters.

The EPA Act requires under-dispenser containment underneath new motor fuel dispenser systems at UST systems regulated under 40 CFR part 280. However, EPA is aware of a small number of dispenser systems, such as kerosene dispensers, that do not dispense motor fuel. Small releases can occur at these dispensers in the same manner as they occur at motor fuel dispensers.<sup>15 16 17</sup> Therefore, this final UST regulation requires owners and operators install UDC underneath new dispenser systems at UST systems regulated under 40 CFR part 280, irrespective of whether they dispense motor fuel.

The secondary containment requirement applies to new or replaced underground tanks and piping regulated under Subtitle I, except those excluded by regulation in § 280.10(b) and those partially excluded by regulation in § 280.10(c). Petroleum and hazardous substance USTs must meet the secondary containment requirement with the corresponding use of interstitial monitoring for release detection. The 1988 UST regulation allowed variances to the use of interstitial monitoring as the method of release detection for hazardous substance USTs. Since these variances are no longer an option, EPA is removing the language allowing variances for new installations from this final UST regulation.

EPA is requiring owners and operators install tank and piping secondary containment that: Will contain regulated substances leaked from the primary containment until they are detected and removed; will prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and is monitored for a leak at least once every 30 days using interstitial

monitoring. These requirements are consistent with the requirements for secondarily contained hazardous substance tanks in § 280.42 and are necessary to help prevent releases to the environment.

EPA is not requiring secondary containment for piping that meets the requirements of § 280.41(b)(2)(i) through (v), sometimes called safe suction piping, because such piping is currently not required to meet release detection requirements. Safe suction piping uses a suction pump to deliver regulated substances from the UST to the dispenser. Safe suction piping operates at less than atmospheric pressure, slopes towards the UST so regulated substances drain to the UST if suction is lost, and has only one check valve located close to the suction pump. As discussed in the 1988 UST regulation preamble, these characteristics ensure that little, if any, regulated substances will be released if a break occurs in the line.<sup>18</sup> Similarly, EPA considers piping that manifolds two tanks together, which has characteristics that allow product to drain to the manifolded tanks if the piping loses suction, the same as safe suction piping. In addition, this final UST regulation does not require secondary containment for new and replaced piping associated with field-constructed tanks greater than 50,000 gallons in capacity and airport hydrant fuel distribution systems. See section C-2 for additional information about these types of UST systems.

EPA is not requiring secondary containment and UDC for UST systems where installation began on or before 180 days after the effective date of this final UST regulation. 180 days allows owners and operators who have concrete plans for a new UST system or dispenser installation to move forward with their plans before the secondary containment and UDC requirement takes effect. Similar to the definition of existing tank system in the 1988 UST regulation, EPA considers an installation to have begun after the owner or operator applied for or obtained all federal, state, and local approvals or permits and:

- Physical construction or installation began; or
- The owner or operator entered into a contractual agreement that cannot be cancelled or modified without substantial loss and physical construction or installation will commence within a reasonable time frame.

Requiring retrofits of major components would be a significant financial burden for owners and operators. EPA anticipates owners and operators will replace single walled UST systems as they age. When owners and operators replace single walled UST systems after the effective date of the final UST regulation, tanks and piping must be secondarily contained and new dispensers must have UDC.

To implement secondary containment and UDC, EPA is adding new definitions to this final UST regulation. EPA is defining these terms so they are consistent with the definitions contained in EPA's secondary containment grant guidelines to implementing agencies.<sup>19</sup> New definitions in the final UST regulation are:

- Dispenser—This means equipment located aboveground that dispenses regulated substances from the UST system. The 2011 proposed UST regulation defined dispenser system. However, based on comments received, EPA decided to also add the definition of dispenser to the final UST regulation.

- Dispenser system—This means the dispenser and the equipment necessary to connect the dispenser to the UST system. As described above, EPA decided to add dispenser to the list of definitions in the final UST regulation for clarity. As a result, EPA shortened the definition of dispenser system in the final UST regulation to account for the new definition of dispenser.

- Replaced—For a tank, this means to remove a tank and install another tank. For piping, it means to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run. Commenters suggested adding a definition of replaced as it applies to a dispenser system. However, since EPA is only applying the UDC requirement to new dispenser systems, we are not defining the term replaced as it relates to dispenser systems.

- Secondary containment or secondarily contained—This means a release prevention and release detection system for a tank or piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring of piping. The EPA Act defines secondary containment as a release

<sup>15</sup> Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, US EPA/OUST, March 2005.

<sup>16</sup> Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, US EPA/OUST, August 2004.

<sup>17</sup> Frequency And Extent Of Dispenser Releases At Underground Storage Tank Facilities In South Carolina (EPA-510-R-04-004, September 2004). <http://epa.gov/oust/pubs/dispenser.htm>.

<sup>18</sup> Preamble to 40 CFR part 280, 53 FR 37154, September 23, 1988.

<sup>19</sup> Grant Guidelines to States for Implementing the Secondary Containment Provision of the Energy Policy Act of 2005: <http://epa.gov/oust/fedlaws/secondco.htm>.

detection and prevention system that meets the interstitial monitoring requirement in § 280.43(g). Based on this definition, this final UST regulation includes interstitial monitoring as part of the secondary containment definition. Consistent with the 1988 UST regulation release detection requirements, EPA is requiring interstitial monitoring of new and replaced secondarily contained tanks and piping to occur at least once every 30 days. Some commenters expressed concern about whether secondary containment included containment sumps. To clarify the definition, EPA is adding language about containment sumps to the secondary containment definition. In addition, EPA is defining containment sump in this final UST regulation. See section B-4, Secondary Containment Tests, for details about this new definition. Several commenters suggested EPA add to the definition of secondary containment a 360 degree containment requirement for tanks. EPA relies on codes of practice developed by nationally recognized associations or independent testing laboratories to determine the degree of containment necessary to be considered secondarily contained. This final UST regulation continues to rely on these codes of practice for determining when the tanks and piping are considered secondarily contained.

- Under-dispenser containment— This means containment underneath a dispenser system designed to prevent leaks from the dispenser and piping within or above the UDC from reaching soil or groundwater. Based on comments received and to provide clarification, EPA is adding piping in the containment sump to the definition.

EPA's secondary containment grant guidelines provide states with significant flexibility to define replaced as it applies to piping. The guidelines require that states, at a minimum, consider replacing piping when 100 percent of piping, excluding connectors, connected to a single UST is removed and other piping is installed. When deciding how to best define replaced as it applies to piping, EPA analyzed state UST regulations for approximately 40 states that currently require secondary containment and interstitial monitoring.<sup>20</sup> About 75 percent of these states have requirements as stringent as,

or more stringent than, the 50 percent threshold in this final UST regulation.

In addition, EPA performed a screening analysis using limited, readily available data to determine when repair cost approached replacement cost (and at what point owners and operators were most likely to replace the entire piping run rather than repair it).<sup>21</sup> The screening analysis suggested replacement cost of an entire piping run became equal to repair cost when about 60 percent of a piping run is repaired. Since 60 percent was an approximate screening number, EPA in this final UST regulation is requiring owners and operators to secondarily contain the entire piping run when 50 percent or more of a piping run is replaced. Fifty percent represents half of a piping run, is consistent with most implementing agency decisions, and provides flexibility for allowing repairs while continuing to protect the environment. Fifty percent also prevents owners and operators from leaving small pipe sections in the ground to avoid this secondary containment requirement. If an UST has multiple piping runs, the secondary containment requirement applies independently to each piping run where 50 percent or more of piping is replaced. Currently installed piping runs, and piping runs where less than 50 percent of the piping is repaired, do not require secondary containment.

For pressurized piping, EPA considers a piping run to be the piping that connects the submersible turbine pump (STP) to all of the dispensers fed by that pump. For example, if a tank has two STPs, EPA considers the piping associated with each STP to be separate piping runs. For suction piping, a piping run is the piping that runs between the tank and the suction pump.

Consistent with EPA's current policy, if an owner or operator chooses to reinstall a secondarily contained tank or piping that was previously installed, that tank or piping must meet new tank and piping standards in § 280.20 at the time of installation.

EPA is requiring owners and operators install UDC underneath new dispenser systems at UST systems regulated by 40 CFR part 280. Data from release sites show dispensers are one of the leading release sources.<sup>22 23</sup> UDC is located underground and prevents some

releases by containing small leaks that occur inside and underneath the dispenser. EPA considers a dispenser system new when owners and operators install both the dispenser and equipment needed to connect the dispenser to an UST system. EPA includes check valves, shear valves, unburred risers or flexible connectors, and other transitional components as equipment that connects a dispenser to an UST system. This equipment is located underneath the dispenser and typically connects underground piping to a dispenser. If an owner or operator replaces a dispenser but uses existing equipment to connect a dispenser to the UST system, then UDC is not required.

To contain small releases from the dispenser, piping, and other equipment, UDC must be liquid tight. This final UST regulation requires UDC be liquid tight on its sides, bottom, and at any penetrations through the containment. EPA is requiring periodic testing of UDC in section B-4, Secondary Containment Tests, if the UDC is used for piping interstitial monitoring. In addition, EPA is requiring annual inspections of containment sumps in section B-1, Walkthrough Inspections, including UDC. Finally, an owner or operator must be able to access and visually inspect the containment. If visual inspection and access are not possible, then owners and operators must periodically monitor UDC (*i.e.*, by electronic monitoring) to ensure it is intact and free of liquids. EPA proposed continuous UDC monitoring if visual inspection and access of the UDC are not possible. However, in guidance to state UST programs about meeting the secondary containment provision of the EPCRA, EPA did not require continuous monitoring. Therefore, to provide owners and operators additional flexibility and be consistent with guidance provided to states, this final UST regulation requires periodic monitoring of UDC if access to and visual inspection of the UDC are not possible.

#### B. Additional Requirements for Operation and Maintenance

The 1988 UST regulation required owners and operators install improved UST system equipment to detect and prevent releases; however, it did not require operation and maintenance for all of that equipment. Owners and operators need to properly operate and maintain their UST system equipment in order to prevent and quickly detect releases. Therefore, this final UST regulation adds requirements for periodic walkthrough inspections, spill prevention equipment testing, overfill

<sup>20</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA-HQ-UST-2011-0301.

<sup>21</sup> Industrial Economics Incorporated, Work Assignment #1-19, *Methodology and Calculator for Secondary Containment for Piping*, October 3, 2008.

<sup>22</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>23</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

prevention equipment inspections, containment sump testing, and release detection equipment testing.

When a test or inspection occurs, owners and operators may find problems with the UST system. When a test or inspection indicates a problem, owners and operators must repair the problem to remain in compliance with this final UST regulation. Section 280.33 of this final UST regulation describes repair requirements for UST systems.

#### 1. Walkthrough Inspections

To help EPA determine whether walkthrough inspections will be effective, EPA asked nine states with requirements for periodic walkthrough inspections whether their requirements are effective.<sup>24</sup> Seven states believe their programs are effective. Two states did not provide input because they had not been implementing their walkthrough inspection programs long enough to evaluate effectiveness. States providing input indicated their walkthrough inspections: Identify and resolve problems more quickly; decrease the chance of a potential spill or release; and increase understanding and compliance with the UST regulation. Based on this information and input received from comments on the 2011 proposed UST regulation, EPA thinks walkthrough inspections will be effective in helping prevent and detect releases.

Based on comments EPA received, this final UST regulation requires owners and operators conduct walkthrough inspections as follows:

- Every 30 days:
  - Visually check spill prevention equipment for damage and remove liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to ensure it is securely on the fill pipe; and, for double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area (exception: Owners and operators of spill prevention equipment at UST systems receiving deliveries at intervals greater than 30 days may check that equipment prior to each delivery)
  - Check release detection equipment to ensure it is operating with no alarms or unusual operating conditions present and ensure release detection records are reviewed and current
    - Annually:
      - Visually check containment sumps for damage and leaks to the containment area or releases to the environment;

remove liquid (in contained sumps) or debris; and, for double walled containment sumps with interstitial monitoring, check for a leak in the interstitial area

- Check hand held release detection equipment, such as groundwater bailers and tank gauge sticks, for operability and serviceability

In addition, this final UST regulation allows owners and operators to conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory or according to requirements developed by the implementing agency. The inspections must check equipment in a manner comparable to the walkthrough inspection requirements described above.

This final UST regulation requires owners and operators maintain walkthrough inspection records for one year. Most commenters supported a one year recordkeeping requirement for walkthrough inspections. In addition, the one year recordkeeping time frame is consistent with the recordkeeping requirement for 30 day release detection monitoring. The walkthrough inspection record must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if owners and operators check spill prevention equipment less frequently than every 30 days.

In 2011, EPA proposed to implement the walkthrough inspection requirement on the effective date of the final UST regulation. However, based on comments received and to align implementation of all operation and maintenance requirements, owners and operators must begin conducting walkthrough inspections not later than three years after the effective date of this final UST regulation. This change will make compliance easier and allow owners and operators ample time to understand their walkthrough inspection responsibilities.

In 2011, EPA proposed requiring owners and operators inspect containment sumps once every 30 days. Many commenters were concerned about inspecting containment sumps every 30 days because of the physical burdens of lifting heavy lids, the potential to ruin seals that prevent water from entering the sump, and the safety of the people performing the inspection in high traffic areas. While EPA thinks frequent containment sump inspections are a valuable part of UST system operation and maintenance, EPA

recognizes the concerns raised by commenters and is moving the requirement to conduct containment sump inspections from once every 30 days to annual, which coincides with when owners and operators must open containment sumps to test release detection equipment.

In the 2011 proposed UST regulation, EPA required that hand held release detection equipment be inspected once every 30 days. Based on commenter input, this final UST regulation requires annual inspections of hand held release detection equipment to coincide with other release detection equipment operation and maintenance requirements.

In the 2011 proposed UST regulation, EPA required 30 day cathodic protection inspections as part of the walkthrough inspection. Several commenters indicated this frequency conflicted with the 60 day requirement already in the 1988 UST regulation. Based on this input, this final UST regulation keeps cathodic protection inspections at the 60 day interval as required in the 1988 UST regulation. Therefore, owners and operators must continue to perform the 60 day impressed current cathodic protection inspections to ensure equipment is running properly and keep the most recent three records of those inspections.

The 2011 proposed UST regulation required checking monitoring and observation wells every 30 days to make sure they are secure. A few commenters questioned the need to perform these inspections because owners and operators seldom access these wells unless they are used for release detection or cleanup. EPA agrees with these commenters and also thinks that owners and operators will secure monitoring wells following each 30 day release detection monitoring event or during cleanups as part of their normal compliance activities. Therefore, EPA is not including monitoring and observation wells as part of the periodic walkthrough inspection requirement in this final UST regulation.

EPA received several comments on the 2011 proposed UST regulation recommending treating nonretail UST systems differently than traditional commercial UST facilities because some nonretail UST systems receive infrequent deliveries. Based on the comments, this final UST regulation allows additional flexibility for inspecting spill prevention equipment at UST systems where filling occurs infrequently. In cases where filling activities occur less often than 30 days, owners and operators may inspect spill

<sup>24</sup> Work Order No. 1004, Task 2, Subtask a—State Walkthrough Underground Storage Tank Inspections, SKEO, 1/31/2013

prevention equipment prior to each delivery, instead of at least once every 30 days. This exception to the spill prevention equipment check for the 30 day walkthrough inspection requirement will still provide appropriate environmental protection because the purpose of this equipment is to catch drips and spills that may occur when the delivery hose is disconnected from the fill pipe. For UST systems receiving infrequent deliveries, inspecting spill prevention equipment before each delivery is adequate.

This final UST regulation retains 30 day inspections of release detection equipment and spill prevention equipment. EPA thinks these inspections are needed at least once every 30 days for release detection to ensure the equipment is operating, check release detection records, and determine whether the tank or piping is leaking. Owners and operators who monitor their release detection system remotely may check the release detection equipment and records remotely as long as the release detection system at the UST system location is determined to be in communication with the remote monitoring equipment. In addition, 30 day inspections (or before each delivery) of spill prevention equipment will ensure these devices contain small drips and spills that occur when the delivery hose is disconnected from the fill pipe. Based on commenter input, EPA is adding the requirement to check for and remove obstructions in the fill pipe as part of the walkthrough inspection because obstructions in the fill pipe will cause a shutoff device to operate improperly.

EPA is including Petroleum Equipment Institute's Recommended Practice 900, *Recommended Practices for the Inspection and Maintenance of UST Systems*, as a code of practice that may be used to meet the walkthrough inspection requirement in this final UST regulation.<sup>25</sup> This recommended practice includes daily, monthly, and annual inspections for properly maintaining underground storage tank systems. Owners and operators who use the code of practice option for meeting UST requirements must use the entire code of practice. For example, owners and operators would not meet the walkthrough inspection requirement if they chose to follow only some of the walkthrough inspection areas in the code of practice while ignoring others.

This final UST regulation allows flexibility for owners and operators to conduct walkthrough inspections

themselves or hire a third party to conduct walkthrough inspections. Although EPA does not require training for owners and operators who conduct these inspections, operators trained in the Class A or B training requirements (see section A-1) should already have adequate knowledge to perform periodic walkthrough inspections.

EPA received multiple comments suggesting we revise the 30 day inspection requirement to be a monthly requirement. After careful consideration, EPA is keeping the 30 day inspection requirement. Thirty days provides owners and operators with clarity about the inspection time frame by specifying the maximum number of days between walkthrough inspections. EPA is not moving to monthly inspections because owners and operators could misinterpret monthly and go 60 or more days without conducting a walkthrough inspection. For example, an owner or operator could perform a monthly inspection on January 31, then again on February 1, and then not inspect again until March 31. If an owner or operator continued this practice, six inspections would occur one day apart and six inspections would occur about 60 days apart. While this could be considered inspecting monthly, it is not inspecting consistently on or about the same time each month. EPA wants to ensure the walkthrough inspection frequency is consistent, rather than allow the more inconsistent monthly option in this example. Since 30 days is the average length of a month, EPA's intent with requiring 30 days is to ensure owners and operators conduct walkthrough inspections on or about the same time each month.

Some commenters raised concern about disposing of liquids owners and operators discover during the inspection. For spill prevention equipment and containment sumps to operate as intended, those areas must be free of liquids. In the past, when owners and operators found liquids in those areas, they needed to remove the liquids so the equipment would operate properly (and meet the 1988 UST regulation). This final UST regulation is requiring those areas be inspected periodically; as a result, owners and operators may discover the liquid sooner, but the responsibility to remove the liquid remains the same. EPA expects owners and operators to remove, manage, and dispose of the liquid properly (according to federal, state, and local requirements) as soon as practicable after discovery.

## 2. Spill Prevention Equipment Tests

In this final UST regulation, EPA is adding a three year testing requirement for spill prevention equipment. This action helps ensure spill prevention equipment will contain small drips and spills when the delivery transfer hose is disconnected from the fill pipe. Owners and operators need to properly operate and maintain their spill prevention equipment in order to prevent releases to the environment. If a small release occurs at the fill port and the spill prevention equipment is not liquid tight, then the release can exit the spill prevention equipment and reach the environment. EPA is aware of various problems with spill prevention equipment. Data show that UST spills account for about 15 percent of releases from UST systems.<sup>26 27</sup> Examples of problems with spill prevention equipment include damage due to: Vehicles driving over the spill prevention equipment; ground movement or freeze and thaw cycles; inadequate installation practices; and normal wear and tear. In addition, the typical life of spill prevention equipment is relatively short—five to eight years according to a South Carolina study.<sup>28 29</sup> The life span for spill prevention equipment can be even shorter when exposed to more severe weather conditions such as freeze and thaw cycles and plowing following snow events. Because of these factors, periodic spill prevention equipment testing is needed to minimize problems and ensure spill prevention equipment will contain small releases from the delivery hose when disconnected from the fill pipe.

This final UST regulation does not require periodic testing of double walled spill prevention equipment if the integrity of both walls is periodically monitored. Because the integrity of both walls is periodically monitored, this type of spill prevention equipment is periodically checked for tightness. In 2011, EPA proposed to exclude from the periodic testing requirement only double walled spill prevention equipment with continuous interstitial monitoring. Several commenters suggested that monitoring of the

<sup>26</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

<sup>27</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>28</sup> Spill Bucket Performance Presentation by Dale Stoudemire, 2005 UST National Conference, March 14–15 2005, Seattle, WA.

<sup>29</sup> Spill Buckets: Mistaken Expectations?, LUSTLine Bulletin 48, Dale W. Stoudemire, November 2004.

<sup>25</sup> This document is available for purchase at [www.pei.org](http://www.pei.org).

interstitial area be used in lieu of periodic spill prevention equipment testing. EPA agrees with commenters that double walled spill prevention equipment, where the integrity of both walls is periodically monitored, should not have to undergo testing—as long as owners and operators conduct periodic monitoring of the equipment at a frequency consistent with, or more frequent than, the walkthrough inspection frequency (see section B–1). For example, owners and operators who check vacuum, pressure, or liquid interstitial integrity indicators on double walled spill containment devices as part of their 30 day walkthrough inspections are considered to be periodically monitoring the integrity of both walls.

For spill prevention equipment that must be tested once every three years, this final UST regulation requires owners and operators to conduct testing using vacuum, pressure, or liquid methods. In addition, the test must be conducted in accordance with manufacturer's requirements or a code of practice developed by a nationally recognized association or independent testing laboratory. The manufacturer's requirement is an option only when the manufacturer has developed requirements for testing the tightness of their spill prevention equipment. As of the publication date of this final UST regulation, EPA is aware of one code of practice that contains procedures for testing spill prevention equipment: Petroleum Equipment Institute (PEI) Recommended Practice (RP) 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*.<sup>30</sup> EPA is adding this code of practice to this final UST regulation. In addition, EPA is providing implementing agencies flexibility to allow other methods they determine to be as protective of human health and the environment as the manufacturer's requirements or a code of practice. This option allows alternatives in case codes of practice and manufacturer's requirements are not available for testing spill prevention equipment. Several commenters expressed concern that EPA did not establish specific pass or fail performance criteria for spill prevention equipment testing. EPA thinks the manufacturer, code of practice, or implementing agency are better suited to establish test method criteria because spill prevention devices are manufactured in different shapes and

sizes. Therefore, EPA is relying on the test method to establish specific pass or fail performance criteria.

In 2011, EPA proposed a one year implementation time frame for owners and operators to begin conducting spill prevention equipment testing. However, based on commenter input suggesting implementation be consistent with other testing requirements, EPA is requiring owners and operators of spill containment equipment in use as of the effective date of this final UST regulation conduct the first test no later than three years after the effective date of this final UST regulation. EPA thinks aligning implementation dates for the different operation and maintenance testing requirements to the extent possible will provide clarity about the requirements owners and operators must meet. After the first spill prevention equipment test, owners and operators must test spill prevention equipment at least once every three years.

For UST systems brought into use after the effective date of this final UST regulation, the spill prevention equipment testing requirement applies at installation. However, owners and operators must also follow the installation requirements in § 280.20(d) which require manufacturer's instructions and installation standards be followed. These instructions and standards currently address liquid tightness of spill prevention equipment at installation. As long as the spill prevention equipment is tested and liquid tight at installation, the first periodic spill prevention equipment test does not have to be conducted until three years after installation.

In 2011, EPA proposed that owners and operators test spill prevention equipment at least annually. However, based on comments received, EPA is requiring owners and operators test spill prevention equipment at least once every three years. Commenters suggested that all operation and maintenance testing should be aligned so that all tests can be conducted at the same time. EPA agrees. To make it easier for owners and operators to comply, this final UST regulation aligns periodic spill, overfill, and secondary containment testing to the extent possible. Since spill prevention equipment has a relatively short lifespan, EPA thinks a three year testing frequency, when combined with periodic visual checks via the walkthrough inspection (see section B–1), is adequate to ensure spill prevention equipment will contain any drips or spills when the delivery hose is disconnected from the fill pipe.

EPA received significant support for requiring owners and operators to keep records of the spill prevention equipment test for three years. This final UST regulation requires owners and operators maintain records of spill prevention equipment testing for three years for each spill prevention device at the facility. A three year period aligns with the maximum time between on-site UST facility compliance inspections. These records will demonstrate to implementing agencies that the spill prevention equipment was tested and tight at the time of the test.

Owners and operators of UST systems with double walled spill prevention equipment, where the integrity of both walls is periodically monitored and who choose not to conduct spill prevention equipment testing at least once every three years, must maintain documentation showing that spill prevention equipment has two walls and the integrity of both walls is periodically monitored. Owners and operators must maintain this documentation for as long as the equipment is periodically monitored. Owners and operators who discontinue periodic monitoring of their double walled spill prevention equipment must conduct a test within 30 days of discontinuing the periodic monitoring. EPA considers this necessary because discontinuing periodic monitoring of the interstitial area may mean some portion of that area of the spill prevention equipment may no longer have integrity. Owners and operators need to ensure the primary containment of the spill prevention equipment is tight. Alternatively, owners and operators may choose to test double walled spill prevention equipment once every three years, and maintain the test record, in lieu of periodically monitoring this equipment and maintaining these monitoring records.

Several commenters raised concerns about disposal of the spill prevention equipment test liquid following the test. EPA considered test liquid disposal in this final UST regulation and contacted several vendors to determine whether disposal of the test liquid was included as part of spill prevention equipment testing.<sup>31</sup> Some vendors include handling of the test liquid as part of the test; they carry the test liquid with them and reuse it several times before disposal. Others charge a separate cost to dispose of the test liquid or make sure the owner or operator has drums on site to dispose of the test liquid. In addition,

<sup>30</sup> This document is available for purchase at [www.pei.org](http://www.pei.org).

<sup>31</sup> Spill, Overfill, and Secondary Containment testing Questions and Answers from Three Vendors (11/8/12).

vendors sometimes use vacuum testing for spill prevention equipment testing, which eliminates the liquid from the test.

A few commenters raised concerns about facility down time and replacement costs for spill prevention equipment as a result of testing. EPA acknowledges that, in instances where access to the spill prevention equipment is in the line of traffic, there could be a small amount of facility down time as a result of testing; however EPA thinks the benefit to the environment far outweighs the cost of potential down time. To minimize the effects of down time, owners and operators can also schedule the testing during low traffic times at the facility or when other routine maintenance occurs. EPA expects owners and operators to have properly functioning spill prevention equipment at all times and fix problems when they are discovered. The spill prevention equipment test may uncover a problem earlier, resulting in repair or replacement (and better protection from spills) sooner rather than later, and more quickly detect or prevent releases of regulated substances to the environment.

### 3. Overfill Prevention Equipment Inspections

In this final UST regulation, EPA is adding periodic operation and maintenance requirements for overfill prevention equipment to help ensure the equipment is operating properly and will activate before an UST is overfilled. Owners and operators need to properly operate and maintain their overfill prevention equipment in order to prevent releases to the environment. If overfill prevention equipment is not working properly, an UST can be overfilled and release product to the environment. EPA is aware that USTs are being overfilled and there are problems with overfill prevention equipment. Data show that tank overfills account for about 15 percent of releases from UST systems.<sup>32 33</sup> Examples of problems with overfill prevention equipment include: Tampering, improper use, and normal wear and tear. Overfill prevention equipment inspections will minimize problems and ensure overfill prevention equipment is operating properly.

The 2011 proposed UST regulation used the term testing for overfill prevention equipment when describing

the periodic functionality checks. However, based on input from commenters about potentially overfilling the tank during testing, EPA is using the term inspections—rather than testing—in this final UST regulation. The procedure to determine whether overfill prevention equipment is operating properly should not overfill the tank. Rather, the equipment must be inspected to determine whether it will operate or activate properly according to requirements in this final UST regulation. For example, the inspection to determine whether an automatic shutoff device in the fill pipe will activate at the correct height might involve removing and inspecting the device to ensure it operates as well as measuring the position of the device in the tank to ensure it activates at the appropriate level in the tank.

For overfill prevention equipment inspections, owners and operators must use manufacturer's requirements or a code of practice developed by a nationally recognized association or independent testing laboratory. Manufacturer's requirements are an option only when manufacturers have developed inspection requirements for their overfill prevention equipment that determines the device is set to activate at the appropriate level in the tank and will activate when the regulated substance reaches that level. As of this final UST regulation, EPA is aware of one code of practice that contains procedures for inspecting overfill prevention equipment: PEI RP 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*.<sup>34</sup> EPA added this code of practice in this final UST regulation. In addition, EPA is providing implementing agencies flexibility to allow other methods they determine to be as protective of human health and the environment as the manufacturer's requirements or a code of practice. This option allows alternatives in case a code of practice and manufacturer's requirements are not available for inspecting overfill prevention equipment.

This final UST regulation requires owners and operators conduct overfill prevention equipment inspections at least once every three years. Commenters generally supported a three year or more frequent inspection cycle. EPA chose the three year time frame because it aligns with three year compliance inspections and is consistent with other operation and

maintenance requirements, such as containment sump testing and spill prevention equipment testing.

In 2011, EPA proposed to stagger implementation for overfill prevention equipment inspections over a three year period based on the installation date of the oldest UST at the facility. However, EPA received significant input from commenters opposing the phased in approach and advocating a single implementation date. EPA agrees with the merits of a more simplified approach. Therefore, for overfill prevention equipment installed as of this final UST regulation, owners and operators must conduct the first inspection within three years of the effective date of this final UST regulation. After the first overfill prevention equipment inspection, owners and operators must inspect overfill prevention equipment at least once every three years.

For UST systems brought into use after the effective date of this final UST regulation, the overfill prevention equipment inspection requirement applies at installation. However, owners and operators must also follow the installation requirements in § 280.20(d) which require following manufacturer's instructions and installation standards. These instructions and standards currently address the operability of the overfill equipment at installation. As long as the overfill prevention equipment is inspected for operability at installation, the first periodic overfill prevention equipment inspection does not have to be conducted until three years after installation.

EPA received significant support for requiring owners and operators to keep records of overfill prevention equipment inspections for three years. The three year period aligns with the maximum time between on-site UST facility compliance inspections. Therefore, this final UST regulation requires owners and operators maintain for three years overfill prevention equipment inspection records for each overfill device at the facility. These records will demonstrate to implementing agencies that the overfill prevention equipment has been inspected, is set at the appropriate height in the tank, and will activate when regulated substances reach that height.

Several commenters were concerned about potential damage to overfill prevention equipment during removal for inspection. EPA asked several vendors who perform overfill prevention equipment inspections about the potential for damage during periodic overfill prevention equipment

<sup>32</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>33</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

<sup>34</sup> This document is available for purchase at [www.pei.org](http://www.pei.org).

inspections.<sup>35</sup> The vendors indicated that seals may need to be replaced when removing the equipment, but that overfill prevention equipment itself would not easily be damaged during removal or reinstallation. The vendors also indicated that replacing these seals will result in little or no additional cost to the owner and operator.

A few commenters raised concerns about facility down time and replacement costs for overfill prevention equipment as a result of periodic inspections. EPA acknowledges that, in instances where access to overfill prevention equipment is in the line of traffic, there could be a small amount of facility down time as a result of inspecting; however EPA thinks the benefit to the environment far outweighs the cost of potential down time. To minimize the effects of down time, owners and operators can also schedule the inspection during low traffic times at the facility or when other routine maintenance occurs. EPA expects owners and operators to have properly functioning overfill prevention equipment at all times and fix problems when they are discovered. The overfill prevention equipment inspection may uncover a problem earlier, resulting in repair or replacement (and better protection from overfills) sooner rather than later.

#### 4. Secondary Containment Tests

The 2011 proposed UST regulation included periodic secondary containment testing requirements for secondary containment areas of tanks and piping and for containment sumps used for monitoring the secondary containment areas of piping. However, based on the significant opposition commenters provided, this final UST regulation is not requiring periodic secondary containment testing of secondarily contained tanks and piping. EPA agrees with commenters who indicated secondarily contained UST systems using interstitial monitoring are more protective of the environment than single walled UST systems. In addition, EPA understands that some secondarily contained UST systems installed before this final UST regulation may not have been designed to have the interstitial areas periodically tested. Finally, EPA does not want to create a disincentive for owners and operators to replace older single walled UST systems with secondarily contained systems or penalize early installers of secondarily contained UST systems. However, this

final UST regulation does require testing of these areas following a repair or, as appropriate, in response to a suspected release if they are used for interstitial monitoring. Interstitial areas where interstitial monitoring is used need to be tight following a repair so that the interstitial monitoring will detect a release before it reaches the environment. Likewise, interstitial areas need to be tested in response to a suspected release to determine whether a leak has reached the environment.

EPA disagrees with commenters who suggested periodic testing for containment sumps used for interstitial monitoring of piping is unnecessary. These areas function similar to spill containment equipment, containing leaks from piping and other components in the sump. Containment sumps can degrade over time, resulting in releases to the environment. Information about source and cause of release shows that a significant number of releases occur in containment sump areas.<sup>36 37</sup> Containment sumps have piping and other components that penetrate through the containment sump walls, increasing the likelihood that these areas are not liquid tight. Containment sumps used for interstitial monitoring of piping need to be liquid tight so they will contain regulated substances released from the primary wall of the piping. Therefore, this final UST regulation includes a three year testing requirement for containment sumps used for interstitial monitoring of piping.

This final UST regulation does not require periodic testing of double walled containment sumps used for interstitial monitoring of piping if the integrity of both walls of the containment sump is periodically monitored. Because the integrity of both walls is periodically monitored, this type of containment sump is periodically checked for tightness. EPA proposed to exclude from the periodic testing requirement only containment sumps with continuous interstitial monitoring. Several commenters suggested that periodic monitoring (rather than continuous monitoring) of the interstitial area of the double walled containment sump would be adequate in lieu of performing the periodic containment sump testing. EPA agrees with commenters that double walled containment sumps, where the integrity of both walls is periodically monitored,

should not have to undergo testing—as long as owners and operators conduct periodic monitoring of the equipment at a frequency consistent with, or more frequent than, the walkthrough inspection frequency (see section B–1). For example, owners and operators who check vacuum, pressure, or liquid interstitial integrity indicators on double walled containment sumps as part of their annual walkthrough inspections are considered to be periodically monitoring the integrity of both walls.

This final UST regulation does not require periodic testing of containment sumps used for reasons other than interstitial monitoring of piping. Testing of these areas is not necessary to ensure the release detection will detect a leak because owners and operators are not using the containment sumps for interstitial monitoring. In these cases, owners and operators use another method of release detection and previously installed containment sumps as part of good business practice.

Some commenters suggested EPA add definitions for continuous monitoring and interstitial monitoring. Since this final UST regulation uses the concept of periodic monitoring rather than continuous monitoring, EPA is not defining continuous monitoring. The concept of interstitial monitoring was used in the 1988 UST regulation and remains the same in this final UST regulation (see § 280.43(g)). In addition, this final UST regulation describes interstitial monitoring in detail in subpart D. Therefore, EPA is not further defining interstitial monitoring. Based on commenter input, EPA is adding to this final UST regulation a definition of containment sump, which addresses comments about what constitutes a containment sump. EPA considers a containment sump to be a liquid tight container that protects the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps, and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of tank (tank top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the piping run (transition or intermediate sump).

This final UST regulation requires owners and operators conduct testing of containment sumps used for interstitial monitoring of piping at least once every three years. Commenters generally supported a three year or more frequent inspection cycle. EPA is choosing the three year time frame to: Make

<sup>35</sup> Spill, Overfill, and Secondary Containment testing Questions and Answers from Three Vendors (11/8/12).

<sup>36</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA/OUST, March 2005.

<sup>37</sup> *Evaluation Of Releases From New And Upgraded Underground Storage Tanks*, Peer Review Draft, US EPA/OUST, August 2004.

compliance easier for owners and operators; align with three year compliance inspections; and be consistent with other operation and maintenance requirements, such as overfill prevention equipment inspections and spill prevention equipment testing.

For containment sumps that require testing at least once every three years, this final UST regulation requires owners and operators conduct testing by using vacuum, pressure, or liquid methods. In addition, the test must be conducted in accordance with manufacturer's requirements or a code of practice developed by a nationally recognized association or independent testing laboratory. The manufacturer's requirement is an option only when the manufacturer has developed testing requirements for their containment sumps that ensure their containment sump is tight. As of this final UST regulation, EPA is aware of one code of practice that contains procedures for testing containment sumps: PEI RP 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*, and is adding this code of practice to the final UST regulation.<sup>38</sup> In addition, EPA is providing implementing agencies flexibility to allow other methods they determine to be as protective of human health and the environment as the manufacturer's requirements or a code of practice. This option allows alternatives in the event that a code of practice and manufacturer's requirements are not available for testing containment sumps. Several commenters expressed concern that EPA did not establish specific pass or fail performance criteria for containment sump testing. However, EPA thinks the test method established by the manufacturer, code of practice, or implementing agency are better suited to establish criteria because containment sumps are made in different shapes and sizes. Therefore, EPA is relying on the test method to establish specific pass or fail performance criteria.

In 2011, EPA proposed to stagger secondary containment testing implementation over a three year period, based on the installation date of the oldest UST at a facility. However, EPA received significant input from commenters opposing a phased in approach and advocating a single implementation date. EPA agrees with the merits of a more simplified

approach. Therefore, containment sumps used for interstitial monitoring of piping installed as of the effective date of this final UST regulation must be tested within three years of the effective date of this final UST regulation. After the first test, owners and operators must conduct periodic testing at least once every three years.

For UST systems brought into use after the effective date of this final UST regulation, the containment sump testing requirement applies at installation. However, owners and operators must also follow the installation requirements in § 280.20(d) which require following manufacturer's instructions and installation standards. These instructions and standards currently address liquid tightness of containment sumps at installation. As long as the containment sump is tested and liquid tight at installation, the first periodic containment sump test does not have to be conducted until three years after installation.

EPA received significant support for the three year recordkeeping time frame for secondary containment testing because the three year time period aligns with the maximum time between on-site UST facility compliance inspections. Therefore, this final UST regulation requires owners and operators maintain for three years containment sump testing records for each containment sump used for interstitial monitoring at a facility. These records will demonstrate to implementing agencies that containment sumps were tested and tight at the time of the test.

Owners and operators who have double walled containment sumps where the integrity of both walls is periodically monitored and choose not to conduct containment sump testing at least once every three years must maintain documentation showing their containment sumps have two walls and the integrity of both walls is periodically monitored. Owners and operators must maintain this documentation for as long as the integrity of the two walls of the containment sump is periodically monitored. Owners and operators who discontinue periodic monitoring of their double walled containment sumps must conduct a test within 30 days of discontinuing the periodic monitoring. EPA considers this necessary because discontinuing periodic monitoring of the interstitial area may mean some portion of that area of the containment may no longer have integrity. Therefore, owners and operators need to ensure the primary containment of the containment sump is tight. Alternatively, owners and

operators may choose to test double walled containment sumps (and maintain testing records) once every three years in lieu of maintaining these records.

Several commenters raised concern about disposing of containment sump test liquid following the test. EPA considered test liquid disposal in this final UST regulation and contacted several vendors to determine whether they included disposal of test liquid as part of containment sump testing.<sup>39</sup> Some vendors include handling of the test liquid as part of the test; they carry the test liquid with them and reuse it several times before disposal. Others charge a separate cost to dispose of the test liquid or make sure the owner or operator has drums on site to dispose of the test liquid. In addition, vendors could use vacuum testing for containment sump testing, which eliminates the liquid from the test.

A few commenters raised concerns about facility down time and replacement costs for containment sumps as a result of testing. EPA acknowledges that, in instances where access to the containment sump is in the line of traffic, there could be a small amount of facility down time as a result of testing; however EPA thinks the benefit to the environment far outweighs the cost of potential down time. To minimize the effects of down time, owners and operators can also schedule the testing during low traffic times at the facility or when other routine maintenance occurs that requires opening containment sumps. EPA expects owners and operators to have properly functioning containment sumps at all times when those containment sumps are used for interstitial monitoring of piping and fix problems when they are discovered. The containment sump test may uncover a problem earlier than if a test was never conducted, resulting in repair or replacements of the containment sump (and better protection from releases) sooner rather than later.

##### 5. Release Detection Equipment Tests

This final UST regulation requires UST owners and operators perform annual operation and maintenance tests on electronic and mechanical components of their release detection equipment to ensure the equipment is operating properly. Owners and operators are required, at a minimum, to check this equipment:

<sup>39</sup> Spill, Overfill, and Secondary Containment testing Questions and Answers from Three Vendors (11/8/12).

<sup>38</sup> This document is available for purchase at [www.pei.org](http://www.pei.org).



- Automatic tank gauge (ATG) systems and other controllers
  - Test alarm
  - Verify system configuration
  - Test battery back-up
- Probes and sensors
  - Inspect for residual build-up
  - Ensure floats move freely
  - Ensure shaft is not damaged
  - Ensure cables are free of kinks and breaks
  - Test alarm operability and communication with controller
- Automatic line leak detector (ALLD)
  - Simulate leak which determines capability to detect a leak
- Vacuum pumps and pressure gauges
  - Ensure proper communication with sensors and controller
- Handheld electronic sampling equipment associated with vapor and groundwater monitoring
  - Ensure proper operation

This final UST regulation changes some requirements discussed in the 2011 proposed operation and maintenance for release detection equipment requirements. Changes include:

- Noting that PEI RP 1200 may be used to meet the testing requirements
- Increasing from one year to three years the time allowed for UST system owners and operators to implement the requirements
- Using the term automatic line leak detector instead of line leak detector
- Removing the leak sensing O-ring from the list of components tested
- Adding handheld electronic equipment associated with vapor and groundwater monitoring

EPA is concerned about the performance of release detection equipment. Inspectors routinely find release detection equipment installed on UST systems, but often that equipment is not properly operated or maintained. In addition, information from an analysis in Florida indicates that leak detection successfully detected 26 percent of all releases. Conversely, leak detection was specifically identified as failing to detect 23 percent of releases.<sup>40</sup> To increase the effectiveness of release detection, this final UST regulation targets operation and maintenance.

This final UST regulation requires that release detection is operated and maintained in accordance with manufacturer's instructions, a code of practice, or requirements developed by the implementing agency. To achieve optimal performance from equipment and to meet release detection

requirements, it is important for UST system owners and operators to both install the equipment properly and properly operate and maintain it. In the 1988 UST regulation, EPA did not provide specifics on the minimum requirements to ensure adequate operation and maintenance of release detection equipment. As a result, manufacturer operation and maintenance requirements vary greatly, even among similar types of equipment.

Some manufacturer's requirements do not adequately address operation and maintenance. For example, some manufacturers only recommend operation and maintenance testing; but EPA is taking the position that testing should be mandatory instead of optional. In addition, similar release detection components should be tested in a similar manner, which will increase the likelihood all release detection equipment will function at optimal levels for as long as possible. California's in field analysis of sensors used for release detection supports EPA's position.<sup>41</sup>

This final UST regulation improves and standardizes operation and maintenance for all release detection equipment; it provides owners and operators with required equipment tests, which will help ensure equipment is properly operated and maintained. EPA is requiring a set of minimum operation and maintenance criteria that owners and operators must follow for electronic and mechanical based release detection equipment.

The operation and maintenance minimum requirements for release detection established in This final UST regulation are based on common requirements and recommendations by various equipment manufacturers of similar equipment. EPA used the National Work Group On Leak Detection Evaluations' (NWGLDE) list of leak detection equipment to identify commonly used equipment.<sup>42</sup> In addition, EPA's publication, *Operating And Maintaining Underground Storage Tanks Systems: Practical Help And Checklists* and PEI's *Recommended Practices for the Inspection and Maintenance of UST Systems* (RP 900) also helped establish proper operation and maintenance activities.

Owners and operators must meet the release detection operation and

maintenance requirements according to one of the following: Manufacturer's instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements determined by the implementing agency to be no less protective of human health and the environment than the two options listed above. These requirements are consistent with options for other operation and maintenance activities in this final UST regulation. As an example, see section B-2, Spill Prevention Equipment Tests.

At the time of the 2011 proposed UST regulation, PEI was developing a code of practice, which EPA anticipated would address operability testing of release detection equipment. PEI issued the final recommended practice in 2012. EPA reviewed PEI's final *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities* (RP 1200) and is including it in this final regulation as an option for meeting the annual release detection equipment testing requirements.<sup>43</sup>

This final UST regulation requires owners and operators maintain records of the annual operation tests for three years. At a minimum, records must: List each component tested; indicate whether each component meets the criteria listed or needed to have action taken; and describe any action taken to correct an issue. The requirement to maintain records for three years is consistent with the three year compliance inspection cycle; maintaining records will allow owners and operators to demonstrate compliance with this operation and maintenance requirement.

Based on comments received and EPA's goal to align all implementation dates for consistency and easier compliance, this final UST regulation requires owners and operators meet operation and maintenance for release detection requirements no later than three years after the effective date of the final UST regulation. This is a change from the 2011 proposed UST regulation, which required that owners and operators meet this requirement no later than one year after the effective date of the final UST regulation.

The 2011 proposed UST regulation used the term line leak detector as a component that must be tested. Based on comments received, this final UST regulation uses the term automatic line leak detector. This is consistent with

<sup>41</sup> California's *Field Evaluation Of Underground Storage Tank System Leak Detection Sensors*, August 2002. [http://www.waterboards.ca.gov/water\\_issues/programs/ust/leak\\_prevention/sensors/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/sensors/index.shtml).

<sup>42</sup> National Work Group On Leak Detection Evaluations' *List Of Leak Detection Evaluations For Storage Tank Systems*. <http://www.nwglde.org/>.

<sup>43</sup> This document is available for purchase at [www.pei.org](http://www.pei.org).

<sup>40</sup> *Petroleum Releases At Underground Storage Tank Facilities In Florida*, Peer Review Draft, US EPA-OUST, March 2005.

how EPA has historically referenced line leak detectors in the 1988 UST regulation. These devices can be electronic or mechanical and are described in § 280.44(a). Commenters also asked EPA to add the performance criteria of 3 gallons per hour at 10 pounds per square inch line pressure to the simulated ALLD test required for the line leak detector. This is unnecessary since the 2011 proposed UST regulation required this performance standard for the simulated test by referencing § 280.44(a). This final UST regulation maintains that ALLDs, whether electronic or mechanical, must meet the annual simulated leak test of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour.

One commenter noted his experience with testing release detection equipment, which verified electrical circuitry, but during operation the connected device still did not function to its intended precision. This commenter recommended EPA change the term test to functionality test. EPA thinks this change is unnecessary. The operation and maintenance requirements for release detection feature minimum performance criteria for testing. Each method used to meet the requirement (manufacturer's instructions, a code of practice, or requirements developed by the implementing agency) must, at a minimum, cover each listed component and the stated performance criteria.

EPA disagrees with the commenter who said EPA should allow self-diagnostic equipment. Similar to the commenter in the previous paragraph, EPA is concerned that self-diagnostic equipment might verify electrical circuitry or communication, but not actually test equipment functionality. EPA requires testing to be performed in a manner that verifies equipment operation according to performance standards provided for each piece of release detection equipment. For example, testing ALLDs must involve simulating a system leak not greater than 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour, or equivalent. ALLDs connected to ATG systems or other controllers may themselves be used to test electronic communication, but unless capable of simulating an appropriate leak in the system, do not meet the performance standard and, therefore, cannot be used to meet this requirement.

In this final UST regulation, EPA is deleting language from the 2011 proposed UST regulation about inspecting and testing the leak sensing O-ring. Commenters requested EPA clarify what a leak sensing O-ring is.

This O-ring is specific to the functional element of mechanical line leak detectors and is, therefore, only present on certain types of ALLDs. In addition, all functional elements will be tested as part of the simulated leak test conducted at 3 gallons per hour at 10 psi or equivalent for all ALLDs.

This final UST regulation allows use of groundwater and vapor monitoring as methods of release detection, but with some restrictions (see section D-6). For owners and operators choosing groundwater or vapor monitoring as their method of release detection, this final UST regulation requires that hand held electronic devices such as photoionization devices meet the operation and maintenance requirements for release detection equipment. Non electronic hand held devices, such as measuring sticks and groundwater bailers, are covered in section B-1, Walkthrough Inspections.

### C. Addressing Deferrals

This final UST regulation addresses airport hydrant fuel distribution systems and USTs with field-constructed tanks. In addition, this final UST regulation removes the release detection deferral for UST systems that store fuel solely for use by emergency power generators. As a result, these UST systems may no longer be subject to Spill Prevention, Control, and Countermeasure (SPCC) requirements. Finally, this final UST regulation partially excludes from Part 280 requirements wastewater treatment tank systems, UST systems containing radioactive material regulated under the Atomic Energy Act, and UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50. To the extent these systems were regulated by the SPCC requirements, they will continue to be regulated by those requirements.

In this final UST regulation, EPA partially excludes from part 280 requirements the aboveground storage tanks associated with airport hydrant fuel distribution systems and USTs with field-constructed tanks. These aboveground storage tanks are part of the UST system, but are excluded from most of this final UST regulation because they are not underground. At the time of the 1988 UST regulation, facilities with an aggregate completely buried storage capacity greater than 42,000 gallons and located near navigable waters of the United States or adjoining shorelines were subject to both UST regulations and SPCC regulations. Since then, the SPCC regulation has been amended and

exempts completely buried storage tanks, as well as connected underground piping, underground ancillary equipment, and containment systems when fully subject to the technical requirements of 40 CFR part 280. Partially excluded aboveground storage tanks which are part of the UST system may be subject to SPCC requirements.

#### 1. UST Systems Storing Fuel Solely for Use by Emergency Power Generators—Require Release Detection

This final UST regulation eliminates the deferral for UST systems storing fuel solely for use by emergency power generators (also referred to as emergency generator tanks). This means emergency generator tanks are no longer deferred from release detection requirements in 40 CFR part 280, subpart D and are subject to all UST requirements.

This final UST regulation requires owners and operators of UST systems storing fuel solely for use by emergency power generators begin meeting these requirements:

- For systems installed after the effective date of this final UST regulation, at the time of installation
- For systems installed on or before the effective date of this final UST regulation, within three years of the effective date of this final UST regulation

EPA is regulating UST systems storing fuel solely for use by emergency power generators because the rationale in the 1988 UST regulation for deferring release detection no longer applies. To allow time for developing workable release detection requirements, EPA in the 1988 UST regulation deferred release detection requirements for UST systems storing fuel solely for use by emergency power generators. The 1988 UST regulation preamble indicated that monthly monitoring requirements were unworkable because these tanks often were located at unmanned stations in remote areas and visited infrequently.

EPA always intended for these systems to meet release detection requirements when appropriate release detection methods became available. Since the 1988 UST regulation, release detection technologies have matured greatly. In addition, technology is now available to perform release detection at remote sites. Emergency generator tanks can now be monitored for releases by the majority of methods listed in subpart D. EPA estimates about 30 percent of emergency generator tanks already have release detection.

Effective remote monitoring methods for release detection are now available

and currently used to monitor unmanned UST systems storing fuel solely for emergency generator tanks. Numerous companies perform remote monitoring for releases at these unmanned sites. When there is a suspected release, a remote monitor transmits a visual or audible alarm to a receiving console at a manned location. This provides owners and operators with real-time release detection data so owners and operators can quickly respond to suspected releases at sites with unmanned emergency generator tanks.

Several commenters raised concerns that release detection methods may not properly operate on some emergency generator tanks and suggested changes to the release detection requirement. Commenters reported these issues:

- Looped piping systems, which is piping configured to run continuously with integrated supply and return lines, cannot be properly isolated or does not have a sufficient quiet period to perform a precision test when using automatic tank gauging
- Emergency generator tanks with copper piping may pose issues with meeting the release detection requirement due to system configurations
- Most emergency generator tanks are single walled and are limited to automatic tank gauging as the form of release detection
- Emergency generator tanks with day tanks and aboveground piping may need anti-siphon valves

Other commenters suggested EPA limit the type of release detection, such as statistical inventory reconciliation (SIR), owners and operators may use on emergency generator tanks and that EPA should require owners and operators install electronic line leak detectors, which have a positive system shutdown of any product flow in the event of a leak. Other commenters recommended EPA clarify that automatic line leak detectors can go to alarm mode only and not shut down or restrict product flow when a leak is suspected in emergency generator tanks used during a crisis.

EPA agrees that not all release detection methods may be suitable for all configurations of emergency generator tanks. EPA discussed the applicability of SIR on emergency generator tanks in general with several SIR vendors and received conflicting responses. A challenge to performing release detection is establishing a usage rate of product based on the run time of the system during operation. Although EPA thinks it is difficult to achieve accurate results, we do not have enough

information at this time to determine that SIR or other methods that rely on metered data are unacceptable for use on emergency generator tanks. Owners and operators must carefully consider whether these methods meet the release detection requirement for their UST systems. To meet the release detection requirement, some systems may require reconfiguration and addition of components such as anti-siphon valves to separate sections of the system. Some emergency generator tanks use safe suction piping, in which case release detection for piping is not required. However, release detection technologies have advanced since EPA issued the 1988 UST regulation and there are now various options available to meet this requirement. EPA understands some commenters want to require owners and operators to install automatic line leak detectors, which only shut off at the STP or allowing only certain release detection methods for these systems. However, to provide flexibility to owners and operators while continuing to protect human health and the environment, this final UST regulation allows owners and operators to choose the most appropriate release detection methods, including automatic line leak detectors that trigger an alarm only and not necessarily shut down the pump, for their systems. For an unmanned facility, the alarm must be transmitted to a monitoring center where someone can hear or see the alarm and quickly respond to a suspected release.

One commenter suggested EPA define what is mission critical as it relates to emergency generator tanks. While EPA acknowledges the need for operating emergency generator tanks during an emergency, we think it is unnecessary to define the term mission critical or make exceptions for the release detection requirement for these tanks. The concern is that owners and operators of these systems should not have to shut down their systems during an emergency if they encounter a suspected release. EPA understands this concern but thinks owners and operators can perform release detection and respond to suspected releases while continuing to operate the UST system.

Emergency generator tanks are located throughout the country. EPA's review of several state databases revealed these systems are located at hospitals, universities, communication utilities, military installations, and other locations relying on backup power sources. Based on information from these databases, EPA estimates UST systems storing fuel solely for use by emergency power generators represent

approximately 3 percent of the active tank population.

Additionally, about 20 states currently require release detection for emergency generator tanks. Automatic tank gauging and secondary containment with interstitial monitoring are the most common release detection methods used for emergency generator tanks. Line tightness testing, automatic line leak detectors, or secondary containment with interstitial monitoring are the most common release detection methods used for piping. With technology now available to detect releases from emergency generator tanks and because they pose a risk to human health and the environment, this final UST regulation removes the deferral from release detection.

The 2011 proposed UST regulation required owners and operators meet the release detection requirement within one year of the effective date of the final UST regulation. Several commenters raised concerns that a one-year time frame to meet this requirement is insufficient for owners and operators to assess, budget, and install release detection. Commenters also wanted EPA to establish a single implementation date, which is consistent with effective dates for release detection on other previously deferred tanks. EPA agrees that extending the time frame will allow owners and operators sufficient time for planning and installing necessary equipment to meet the release detection requirement; but we disagree with commenters who suggested a five to ten year implementation date. EPA also agrees that establishing a single effective date, which is consistent with other effective dates for the release detection requirement, decreases the tracking burden on implementing agencies as well as owners and operators. Based on support for increasing the final implementation date for release detection from one year and EPA's goal of aligning regulatory implementation dates to make compliance easier for owners and operators, EPA is requiring owners and operators of emergency generator tanks installed on or before the effective date of this final UST regulation to meet the release detection requirement within three years of the effective date of this final UST regulation. Emergency generator tanks installed after the effective date of this final UST regulation must meet the release detection requirements when installed.

The 2011 proposed UST regulation required that no later than 30 days after the effective date of the final UST regulation, owners of UST systems storing fuel solely for use by emergency

power generators notify implementing agencies that their systems exist. Commenters stated that this requirement is unnecessary because the 1988 UST regulation excluded emergency generator tanks from only the release detection requirement. EPA agrees with commenters. This final UST regulation does not include this one-time notification requirement for emergency generator tanks.

2. Airport Hydrant Fuel Distribution Systems and UST Systems With Field-Constructed Tanks

This final UST regulation removes the 1988 deferral and requires owners and operators of airport hydrant fuel distribution systems (referred to as airport hydrant systems) comply with applicable requirements. However, EPA is tailoring the requirements to the unique nature of airport hydrant systems. Airport hydrant systems function and are designed differently than conventional USTs. Unlike conventional USTs, airport hydrant systems consist of networks of large diameter underground piping operating

at high pressures to deliver fuel to aircraft. In addition, operation and maintenance requirements for airport hydrant systems may differ from those for conventional UST systems.

This final UST regulation removes the 1988 deferral and requires owners and operators of UST systems with field-constructed tanks comply with applicable requirements. Similar to airport hydrant systems, EPA is tailoring the requirements to the unique nature of field-constructed tanks. UST systems with field-constructed tanks (referred to as field-constructed tanks) range from conventional sizes to very large capacities greater than 2 million gallons.

A few commenters suggested EPA write regulations specifically for airport hydrant systems and field-constructed tanks, since they are distinctly different from conventional USTs. EPA agrees that airport hydrant systems and field-constructed tanks are different from conventional USTs. Additionally, EPA thinks it would help owners and operators if the requirements for airport hydrant systems and field-constructed tanks are in a separate subpart of the

final UST regulation. In order to help owners and operators of these systems comply, this final UST regulation adds subpart K (*UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems*) and places most regulatory requirements for both airport hydrant systems and field-constructed tanks in one location. Since 1988, owners and operators of these systems have been required to comply with the requirements for subparts A (*Program Scope and Interim Prohibition*) and F (*Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances*).

This final UST regulation requires airport hydrant systems and field-constructed tanks installed on or before the effective date of the final UST regulation begin meeting the requirements of subpart K according to the schedule below. Airport hydrant systems and field-constructed tanks installed after the effective date of this final UST regulation must meet the requirements at the time of installation.

Requirement	Effective date
Upgrading UST systems, general operating requirements, and operator training.	Three years after the effective date of this final UST regulation.
Release detection ..... Release reporting, response, and investigation; closure; financial responsibility and notification, except as provided in § 280.251(2)(b).	Three years after the effective date of this final UST regulation. On the effective date of this final UST regulation.

This final UST regulation modifies the 2011 proposed UST regulation by revising the definition of airport hydrant fuel distribution system and defining a field-constructed tank.

An airport hydrant fuel distribution system (also called airport hydrant system) is defined as an UST system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants (fill stands). The airport hydrant system begins where fuel enters one or more tanks from an external source, such as a pipeline, barge, rail car, or other motor fuel carrier.

A field-constructed tank is defined as a tank constructed in the field. For example, a tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed.

Overview of Actions

Release Detection—Tanks

This final UST regulation requires airport hydrant system tanks and field-constructed tanks meet these requirements:

- These tanks must be monitored using release detection methods specified in subpart D:
  - Shop fabricated tanks and
  - Field-constructed tanks with a capacity less than or equal to 50,000 gallons
  - Field-constructed tanks with a capacity greater than 50,000 gallons must either be monitored using release detection methods specified in subpart D (except tanks using groundwater and vapor monitoring must combine that method with inventory control as described in the alternatives below) or use one of the alternatives below
    - Conduct an annual tank tightness test that can detect a 0.5 gallon per hour (gph) leak rate
    - At least once every 30 days, use an automatic tank gauging system to perform release detection, which can detect a leak rate of 1 gallon per hour or less; and at least once every three years, use a tank tightness test that can detect a 0.2 gallon per hour leak rate
    - At least once every 30 days, use an automatic tank gauging system to perform release detection, which

- can detect a leak rate of 2 gallons per hour or less; and at least every two years, use a tank tightness test that can detect a 0.2 gallon per hour leak rate
- At least every two years, perform vapor monitoring (conducted according to § 280.43(e) for a tracer compound placed in the tank system) capable of detecting a 0.1 gallon per hour leak rate
- At least every 30 days, perform inventory control, conducted according to Department of Defense (DoD) Directive 4140.25; Air Transport Association (ATA) Airport Fuel Facility Operations and Maintenance Guidance Manual; or equivalent procedures that can detect a leak equal to or less than 0.5 percent of flow through and either
  - At least every two years, perform a tank tightness test that can detect a 0.5 gallon per hour leak rate or
  - At least every 30 days, perform vapor monitoring or groundwater monitoring (conducted according to § 280.43(e) or (f), respectively, for the stored regulated substance)

The implementing agency may approve another method of release detection if the owner or operator can demonstrate the method can detect a release as effectively as any of methods listed above. In comparing methods, the implementing agency shall consider the size of release the method can detect and frequency and reliability of detection.

**Release Detection—Piping**

Underground piping associated with field-constructed tanks less than or equal to 50,000 gallons must meet the release detection requirements in subpart D of the final UST regulation.

Underground piping associated with airport hydrant systems and field-constructed tanks greater than 50,000 gallons must meet these requirements:

- Piping must be monitored using release detection methods specified in subpart D, except that piping using groundwater and vapor monitoring must combine that method with inventory control as described in the alternatives below, or
- Use one of these alternatives
  - Perform a semiannual or annual line tightness test at or above operating pressure according to the table below

**MAXIMUM LEAK DETECTION RATE PER TEST SECTION VOLUME**

Test section volume (gallons)	Semiannual test—leak detection rate not to exceed (gallons per hour)	Annual test—leak detection rate not to exceed (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

Piping segment volumes greater than or equal to 100,000 gallons, which are not capable of meeting the 3 gallons per

hour leak rate for semiannual testing, may be tested at a leak rate up to 6

gallons per hour according to this schedule:

**PHASE IN FOR PIPING SEGMENTS ≥100,000 GALLONS IN VOLUME**

First test	Not later than three years after the effective date of this final UST regulation (may use up to 6 gph leak rate).
Second test	Between three and six years after the effective date of this final UST regulation (may use up to 6 gph leak rate).
Third test	Between six and seven years after the effective date of this final UST regulation (must use 3 gph leak rate).
Subsequent tests	Beginning seven years after the effective date of this final UST regulation, use semiannual or annual line testing according to the Maximum Leak Detection Rate Per Test Section Volume table above.

- At least every two years, perform vapor monitoring according to § 280.43(e) for a tracer compound placed in the tank system capable of detecting a 0.1 gallon per hour leak rate
- At least every 30 days, perform inventory control, conducted according to DoD Directive 4140.25, ATA Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures, that can detect a leak equal to or less than 0.5 percent of flow through and either
  - At least every two years, perform a line tightness test using the leak detection rate for the semiannual test in § 280.252(d)(2)(i) or
  - At least every 30 days, perform vapor monitoring or groundwater monitoring (conducted according to § 280.43(e) or (f), respectively, for the stored regulated substance) or

• The implementing agency may approve another method of release detection if the owner or operator can demonstrate that the method can detect a release as effectively as any of the methods listed above; in comparing methods, the implementing agency shall consider the size of release the method can detect and the frequency and reliability of detection.

**Release Prevention**

This final UST regulation requires airport hydrant systems and field-constructed tanks meet corrosion protection, spill, overfill, and walkthrough inspection requirements. Corrosion protection installed on airport hydrant systems and field-constructed tanks must meet either:

- New tank and piping standards described in § 280.20, except that new and replaced hydrant piping and piping associated with field-constructed tanks greater than 50,000

gallons need not be secondarily contained or

- Airport hydrant systems and field-constructed tanks installed on or before the effective date of the final UST regulation must either meet the corrosion protection upgrade requirements in § 280.252(b)(1) or the new tank and piping standards described above

Airport hydrant systems and field-constructed tanks installed on or before the effective date of the final UST regulation that are not upgraded according to § 280.252(b) within three years of the effective date of the final UST regulation must be permanently closed according to subpart G. The presence of an internal lining does not meet the corrosion protection upgrade requirement.

Owners and operators of airport hydrant systems and field-constructed tanks must install spill and overfill prevention equipment and meet the

periodic spill testing and overfill inspection requirements of § 280.35. Owners and operators must install the equipment and conduct the first spill test and overfill inspection no later than three years after the effective date of this final UST regulation and every three years thereafter. For airport hydrant systems brought into use after the effective date of this final UST regulation, spill and overfill prevention equipment requirements must be met at installation.

Owners and operators must conduct walkthrough inspections that meet the requirements of § 280.252(c). Owners and operators must conduct the first inspection within three years after the effective date of the final UST regulation. In addition to the items inspected as part of the walkthrough inspection for other regulated UST systems, owners and operators of airport hydrant systems must inspect hydrant pits and hydrant piping vaults every 30 days for areas that do not require confined space entry according to the Occupational Safety and Health Administration (OSHA) and annually for areas that do require confined space entry. Owners and operators must keep documentation of the inspection according to § 280.36(b).

#### Notification

This final UST regulation requires owners and operators of regulated airport hydrant systems and field-constructed tanks meet these notification requirements:

- For airport hydrant systems and field-constructed tanks currently installed, owners and operators must submit no later than 3 years after the effective date of this final UST regulation a one-time notification to their implementing agency that their systems exist
- For airport hydrant systems and field-constructed tanks installed after the effective date of the final UST regulation, owners and operators must provide their implementing agency a notification of each newly installed system within 30 days of bringing each system into use
- Owners must provide their implementing agency a notification of ownership change for each newly acquired airport hydrant system or field-constructed tank within 30 days of the date on which the new owner assumes ownership

#### Financial Responsibility

This final UST regulation requires owners and operators of airport hydrant systems and field-constructed tanks that have not been permanently closed meet

the financial responsibility requirements in subpart H at the time the one-time notification of existence is submitted to the implementing agency. Owners and operators who install these systems after the effective date of this final UST regulation must meet the financial responsibility requirements at installation. This requirement does not apply to state or federal owners of airport hydrant systems and field-constructed tanks.

#### Partially Excluded Components

This final UST regulation excludes aboveground storage tanks associated with airport hydrant systems and field-constructed tanks from the requirements of subparts B, C, D, E, G, J, and K. Owners and operators are still required to comply with subparts A (*Program Scope and Installation Requirements for Partially Excluded UST Systems*); and F (*Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances*) for these tanks.

#### Operator Training

This final UST regulation requires owners and operators of airport hydrant systems and field-constructed tanks meet the operator training requirements in subpart J.

#### Closure Requirements for Previously Closed Tanks

When directed by the implementing agency, owners and operators of airport hydrant systems and field-constructed tanks permanently closed before the effective date of this final UST regulation must assess the excavation zone and close the UST system according to subpart G if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.

#### Background

Tanks and piping associated with airport hydrant systems and field-constructed tanks can store millions of gallons of fuel and handle large volumes of regulated substances on a daily basis. Leaks from these systems can contaminate subsurface soil beneath the airport apron and runways, groundwater, and nearby surface water systems, posing a significant risk to human health and the environment. As a result, EPA is removing the deferral.

Some commenters indicated EPA needed to justify that airport hydrant systems and field-constructed tanks are leaking in order to regulate them. The 1988 UST regulation required owners and operators report only confirmed

releases from these tanks to implementing agencies. Owners and operators were not required to report suspected releases to implementing agencies, which sometimes resulted in gaps for ensuring proper site investigations or transmission of sufficient release information. As a result, implementing agencies have little to no available historical records regarding releases of regulated substances from airport hydrant systems and field-constructed tanks.

In the 2011 proposed UST regulation, EPA provided details on several releases that previously occurred at airport hydrant systems. Since that time, EPA identified additional information on releases from both DoD and commercial airport hydrant systems. For example, at Hartsfield Jackson International Airport in Georgia, active remediation and free product recovery is ongoing (as of 2014) due to a 1988 release of an estimated 14,000 gallons of jet fuel.<sup>44</sup> In 2003, an estimated 100,000 gallons of jet fuel leaked from the valves and flanges of an airport hydrant system at Minneapolis-St. Paul International Airport in Minnesota. Some of the jet fuel was released into the sanitary sewer and nearby waterway. During the investigation of the jet fuel release, personnel discovered a second jet fuel leak at a different concourse; this leak impacted the stormwater system and produced oily sheens in the Minnesota River. Responsible parties agreed to pay civil penalties and complete environmental projects, including continued site remediation and fuel recovery.<sup>45</sup> In 1983 at Camp Lejeune, North Carolina, investigators discovered multiple feet of free product while using a hand auger to investigate the cause of a fuel inventory discrepancy.<sup>46</sup> In addition, from the 1960s to the 1980s, thousands of gallons of jet fuel leaked from a former airport hydrant system at Pope Air Force Base, North Carolina. At one time, it was noted that as much as 75,000 gallons of free product was floating on top of the groundwater because of these releases. As of 2014, the site is undergoing remediation.<sup>47</sup> In addition, at Marine Corps Air Station Cherry Point, North Carolina there have been multiple releases from the airport

<sup>44</sup> Corrective Action Plan—Part B: Hartsfield-Jackson International Airport, Concourse Pit. Number 19 Fuel Spill.

<sup>45</sup> [http://www.pca.state.mn.us/index.php/about-mpca/mpca-news/current-news-releases/news-release-archive-2005/airport-agrees-to-pay-\\$540000-for-environmental-violations.html?nav=0](http://www.pca.state.mn.us/index.php/about-mpca/mpca-news/current-news-releases/news-release-archive-2005/airport-agrees-to-pay-$540000-for-environmental-violations.html?nav=0).

<sup>46</sup> [http://www.tftpf.com/New\\_ATSDR3/RR\\_DRAFT\\_RAO.pdf](http://www.tftpf.com/New_ATSDR3/RR_DRAFT_RAO.pdf).

<sup>47</sup> Federal Remediation Technologies Roundtable Abstracts of Remediation Case Studies, Volume 3 <http://epa.gov/tio/download/ftrr/abstractsvol3.pdf>.

hydrant system underground piping. The station was cited twice in the 1990s for contaminating soil and groundwater under this fuel facility due to leaking tanks or fuel spills. An extensive environmental remediation effort is underway in 2014 to clean this site. Contamination from many of the releases combined and migrated to form a single plume.

In the 2011 proposed UST regulation, EPA also provided details on several previous releases that occurred from field-constructed tanks. Since that time, EPA identified additional anecdotal information on releases from field-constructed tanks. At Adak Island, Alaska's Tank Farm A, records show fuel was released at various times from 21,000 to 420,000 gallon field-constructed tanks and piping. As of 2014, all tanks have been removed, but the former fuel farm is still undergoing remediation through long term monitoring and monitored natural attenuation.<sup>48</sup> Also at Adak Island, an overflow during a fuel transfer caused 142,800 gallons of diesel fuel to leak from a 4.8 million gallon underground field-constructed tank into the immediate and surrounding environment, causing harm to native wildlife.<sup>49</sup>

Releases can have a major impact on human health and the environment. Release prevention equipment, regular release detection tests, operator training, periodic walkthrough inspections, and proper operation and maintenance are keys to preventing and quickly identifying releases before they contaminate the surrounding environment. This final UST regulation adds these requirements for airport hydrant systems and field-constructed tanks in order to help prevent and quickly detect leaks from these systems into the environment.

#### Definition of an Airport Hydrant System

The 1988 UST regulation did not provide a definition for airport hydrant system. In the 2011 proposed UST regulation, EPA provided a definition of an airport hydrant system to clarify what components would be regulated. However, that definition was based on an airport hydrant system that received fuel at a single delivery point, designed with all components operating in tandem, and included only the immediate piping and tank directly feeding the airport hydrant piping. To clarify for owners and operators, EPA

presented scenarios of typical airport hydrant systems in a guidance document provided during the public comment period.

After publishing the 2011 proposed UST regulation, EPA met with stakeholders to gather more information on airport hydrant system design and operation.<sup>50</sup> EPA also provided another iteration of the schematics that contained better defined airport hydrant system scenarios. However, some commenters still were confused about which specific components of an airport hydrant system would be regulated.<sup>52</sup>

Many commenters requested that EPA provide guidance on how to perform the calculations to determine whether the airport hydrant system meets the definition of an underground storage tank and requested clarification of system components. In response to these comments, EPA is providing guidance below.

In order for an airport hydrant system to be subject to the final UST regulation, it must first meet the definition of an underground storage tank. Airport hydrant systems are not regulated UST systems under 40 CFR part 280, unless 10 percent or more of the total capacity of the system is beneath the surface of the ground. When performing the calculation, include all tanks and underground piping that are part of the airport hydrant system. An airport hydrant system may have one or more of the following connected together: Aboveground tanks, underground tanks, field-constructed tanks, or factory constructed tanks. Below are two examples. Note that aboveground piping is not included when calculating the total volume.

Example 1: A 1 million gallon aboveground storage tank (AST) connected to underground piping with a capacity of 100,000 gallons does not meet the definition of an UST, as explained below:

$$\begin{aligned} 1 \text{ million gallons (AST)} + 100,000 \\ \text{gallons (underground pipe)} &= 1.1 \\ \text{million gallons total volume} & \\ 1.1 \text{ million gallons} \times 10\% &= 110,000 \\ \text{gallons} & \end{aligned}$$

The volume of the underground piping (100,000 gallons) is less than 10 percent of the total volume of the tanks and underground piping (110,000 gallons).

Example 2: A 2 million gallon AST feeds two 100,000 gallon field-constructed underground storage tanks and two 50,000 gallon underground tanks constructed in the factory which feed 100,000 gallons of underground hydrant piping. Calculating these values yields a total system capacity of 2,400,000 gallons with 400,000 gallons underground. More than 16% of this airport hydrant system is underground making it an UST.

In response to comments on the proposed definition, EPA is clarifying the definition of an airport hydrant system in this final UST regulation. EPA determined that multiple tanks grouped or interconnected together can function as one system to fuel an airport hydrant system. EPA agrees with commenters that it would not be feasible to separate these tanks to define an airport hydrant system. EPA also found that other tanks not directly connected to the underground airport hydrant piping also could feed the airport hydrant system. The Agency is concluding that an airport hydrant system may consist of interconnected aboveground and underground storage tanks (that could be constructed in the factory or field-constructed) and piping that function as integral and interchangeable components of the fueling system. Field-constructed tanks that are part of the airport hydrant system are treated as part of the airport hydrant system and not independent UST systems that are field-constructed. The airport hydrant system begins when regulated substance enters from an external source such as a pipeline, barge, rail car, or other motor vehicle carrier, but does not include the external source. Airport hydrant systems use large diameter piping and operate at pressures higher than those of a conventional UST. This final definition alleviates stakeholder uncertainty on which components of an airport hydrant system must meet the UST regulation by including all integral components that form an airport hydrant system and deliver fuel to the aircraft. These systems include underground piping and ASTs or USTs that hold aircraft fuel (for example, settling tanks or product recovery tanks). They do not include tanks or underground piping not storing aircraft fuel (for example, additive tanks) or tanks and underground piping not connected to the airport hydrant system (for example, a system that fuels an emergency power generator for a pump house). In addition, EPA is aware there may be instances where an airport hydrant system might include permanently installed dispensing

<sup>48</sup> Tank Farm A [http://dec.alaska.gov/Applications/SPAR/CCReports/Site\\_Report.aspx?Hazard\\_ID=686](http://dec.alaska.gov/Applications/SPAR/CCReports/Site_Report.aspx?Hazard_ID=686).

<sup>49</sup> [http://www.darrp.noaa.gov/northwest/adak/pdf/ADAK\\_DARPEA\\_FINAL\\_Draft%20PDF.pdf](http://www.darrp.noaa.gov/northwest/adak/pdf/ADAK_DARPEA_FINAL_Draft%20PDF.pdf).

<sup>50</sup> January 28, 2012, March 29, 2012, and October 19, 2012 meetings with representatives from Airlines for America.

<sup>51</sup> February 28, 2013 and March 18, 2013 meetings with DoD's Defense Logistics Agency Energy.

<sup>52</sup> *Airport Hydrant Systems Scenarios Revised*, dated February 28, 2012.

equipment at the end of the hydrant piping instead of a fill stand. However, since these systems still operate under high pressure and contain large diameter piping, we consider them to be airport hydrant systems.

#### Definition of a Field-Constructed Tank

The preamble to the 1988 UST regulation described a field-constructed tank as a tank usually constructed of steel or concrete and shaped like flat vertical cylinders, with a capacity of greater than 50,000 gallons. Tanks that are primarily factory built, but assembled in the field, are considered factory built tanks. For example, welding two halves of a factory constructed tank together in the field does not qualify the tank as a field-constructed tank. Several commenters requested EPA define field-constructed tank in the final UST regulation in order for implementing agencies and owners and operators to know which tanks are applicable. While EPA thinks this term is self-evident, this final UST regulation defines field-constructed tank as a tank constructed in the field. For example, a tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed. Please note this definition excludes those tanks with components primarily manufactured in a factory with minimal assembly in the field. EPA considers those tanks are factory built tanks. Field-constructed tanks vary from sizes smaller than 50,000 gallons to sizes very large in capacity. Large capacity tanks may exceed size or shape limitations that prohibit transportation of the tank in whole to the UST site. Field-constructed tanks present an engineering, design, or transportation concern that cannot be addressed by fabrication in a factory or are more ideally addressed through in-field construction. This definition includes tanks that are mounded or partially buried, such as those defined in 40 CFR part 112, if 10 percent or more of the volume of the system is beneath the ground's surface or otherwise covered with earthen material. EPA considers a field-constructed tank that is part of a wastewater treatment system to be partially excluded from the final UST regulation according to § 280.10(c). See section C-3 for additional information on the partial exclusion for wastewater treatment tank systems.

#### Universe of Field-Constructed Tanks and Airport Hydrant Systems Affected

UST systems with field-constructed tanks are generally very large and, in the event of a release, pose a substantial

threat to human health and the environment. Typical tank sizes range from 20,000 gallons to greater than 2 million gallons. EPA is aware of approximately 330 UST systems with field-constructed tanks owned by the Department of Defense and 12 field-constructed tanks owned by the Department of Energy (DOE).

One commenter objected to EPA regulating airport hydrant systems because the 2011 proposed UST regulation addressed airport hydrant systems at military facilities and did not include systems at commercial airports. When issuing the 2011 proposed UST regulation, EPA thought the universe of these systems was mainly owned by DoD, based on information from DoD and commercial airport representatives. The 2011 proposed UST regulation also assumed the universe included two commercial airports with airport hydrant systems. Airlines for America (A4A, formerly known as Air Transport Association of America, Inc.) provided additional information during the public comment period that suggested nine commercial airports would be affected by the final UST regulation. As a result of the comments received, EPA did extensive research to confirm which commercial airports might be affected by the final UST regulation. EPA met with personnel from DoD and from eight of the nine suggested commercial airport facilities to gather additional information and determine the universe of airport hydrant systems that would have to comply with the final UST regulation.<sup>53 54 55 56</sup> Additionally, EPA listened to concerns and answered questions about the 2011 proposed UST regulation. EPA also met with release detection vendors to determine whether commercial airports and DoD facilities could achieve release detection compliance within the specified time frames.<sup>57 58 59</sup> EPA concluded that of the nine airports A4A named, eight would possibly be affected by the final UST regulation. Based on these meetings,

<sup>53</sup> Discussions With Commercial Airports That May Be Affected By The Final UST Regulation dated February 6, 2013.

<sup>54</sup> Note that EPA did not meet with personnel from Indianapolis International Airport however, A4A and vendors stated that the airport hydrant system is equipped with the necessary equipment to meet requirements in the final UST regulation.

<sup>55</sup> January 28, 2013 and March 29, 2012 meetings with A4A.

<sup>56</sup> February 28, 2013 and March 18, 2013 meetings with DoD's Defense Logistics Agency Energy.

<sup>57</sup> June 20, 2012 and May 19, 2013 meeting with Hansa Consult of North America, LLC.

<sup>58</sup> June 20, 2012 meeting with VISTA Precision Solutions.

<sup>59</sup> August 15, 2012 meeting with Ken Wilcox and Associates.

EPA found that most of the commercial airport hydrant systems have release prevention and detection equipment currently installed on them and airport personnel are already performing various activities that can be modified to meet the final UST regulation.

#### Process for Obtaining Public Comment

One commenter suggested that EPA:

- Did not follow all requirements to allow stakeholder input prior to issuing the 2011 proposed UST regulation
- Did not allow stakeholders adequate time to provide comments
- Failed to follow the correct public notice procedures
- Failed to inform stakeholders of two commercial airports that might be affected by the final UST regulation
- May have led commercial airport stakeholders to doubt that any commercial airport hydrant systems would be affected by the final UST regulation

The commenter also suggested EPA should withdraw the 2011 proposed UST regulation because the administrative record and resulting proposal conflicted with Executive Order 13563 (*Improving Regulation and Regulatory Review*).<sup>60</sup>

EPA disagrees with these comments. We performed extensive stakeholder outreach both prior to developing the 2011 proposed UST regulation and during the public comment period. In addition, EPA followed procedures required by the Administrative Procedure Act for providing public notice and requesting public comment through the **Federal Register**. In order to allow additional time for airport authorities to perform a preliminary assessment and respond to the 2011 proposed UST regulation, EPA extended the public comment period by two months as requested by commenters.<sup>61</sup> EPA met with all interested stakeholders who requested meetings, including representatives of commercial airports. EPA carefully researched information provided during the public comment period; this included verifying methods of release detection currently

<sup>60</sup> On January 18, 2011, President Obama issued Executive Order 13563, which directed federal agencies to develop a preliminary plan which outlined the agency's approach for periodically reviewing regulations to determine whether any rules "should be modified, streamlined, expanded, or repealed so as to make the agency's regulatory program more effective or less burdensome in achieving the regulatory objectives."

<sup>61</sup> January 5, 2012 request from A4A for a 60-day extension for more time to review and query its membership and potentially affected airports for a more complete understanding of the 2011 proposed UST regulation and potential costs.



in use at commercial airports and DoD facilities, as well as what methods would be technically feasible at those facilities. When issuing the 2011 proposed UST regulation, EPA thought Lambert-St. Louis International Airport and Denver International Airport were the only commercial airports that would be affected by the final UST regulation. EPA identified these airports in a meeting with Airlines for America. During that meeting, the Agency also received additional information on other airports possibly affected by the proposal.<sup>62</sup> While EPA did not specifically identify the two commercial airports that would potentially be affected by the final UST regulation, the 1988 UST regulation has been in effect for over two decades and portions of it have applied to airport hydrant systems since that time. Owners and operators of these systems have been required to comply with those applicable portions of the UST regulation since 1988, and it has been the responsibility of owners and operators to determine whether their airport hydrant systems are regulated since the effective date of the 1988 UST regulation. Nonetheless, EPA stated in the 2011 proposed UST regulation that airport hydrant systems are “. . . mainly owned by the Department of Defense (DoD) . . .,” not that DoD is the sole owner of all airport hydrant systems. This statement indicates there are non-DoD owned airport hydrant systems that could be affected by this final UST regulation.

#### Impacts of Regulating Airport Hydrant Systems and Field-Constructed Tanks

Commenters generally supported removing the deferral for these systems. However, there were some commenters who opposed regulating these systems. A few commenters were concerned about the costs for owners and operators to comply with the release detection requirements of the final UST regulation. EPA acknowledges that some release detection methods may result in additional costs to owners and operators. However, EPA carefully researched current release detection efforts at commercial airports and DoD facilities and used that information to estimate costs. See the RIA, which is available in the docket for this action, for additional information about how we estimated costs.

#### Other Regulations That Affect Airport Hydrant Systems and Field-Constructed Tanks

To avoid overlapping regulations, several commenters suggested EPA

evaluate other requirements that owners and operators of airport hydrant systems and field-constructed tanks perform as part of fuel management programs. One commenter also asserted that this evaluation was necessary to comply with Executive Order No. 13563.<sup>63</sup> After issuing the 2011 proposed UST regulation, EPA performed this evaluation by gathering information on fuel management programs (such as release prevention, repairs, operation and maintenance, inspections, and operator training) owners and operators at these facilities must perform in order to meet other federal, state, and industry regulations.<sup>64</sup> For example, EPA found that requirements administered by the Federal Aviation Authority (FAA), such as 14 CFR part 139 (*Certification of Airports*), and directives, such as ATA 103 and United Facilities Criteria (UFC) 3-460-03, require owners and operators of airport hydrant systems inspect airport hydrant systems and connected components. EPA also found that 14 CFR part 139 (*Certification of Airports*) emphasizes overall airport safety practices.

One commenter asked whether EPA evaluated the SPCC requirements for regulating underground portions of airport hydrant systems. Another commenter suggested that EPA evaluate the effectiveness of existing state requirements for field-constructed tanks.<sup>65</sup> EPA is aware that commercial airports and DoD facilities comply with SPCC requirements for their airport hydrant systems and field-constructed tanks. However, UST and SPCC regulations are complementary. The SPCC regulation focuses on oil discharges that could impact navigable waters, while the UST regulation focuses mainly on day-to-day maintenance and operation to prevent releases to soil and groundwater. For example, the SPCC regulation requires a tank inspection, such as an American Petroleum Institute (API) Standard 653 inspection, which ensures aboveground storage tanks and piping are structurally sound. In addition, regulatory overlap is

<sup>63</sup> Executive Order 13563 requires federal agencies to avoid implementing unnecessary redundant requirements and promulgate regulations that are less burdensome to the regulated community.

<sup>64</sup> EPA performed an assessment of the following additional requirements that owners and operators follow: 40 CFR part 112 (SPCC); 14 CFR part 139 (FAA); A4A 123; ATA 103; ATA O&M Guidance; UFC 3-460-1 [*Proposed UST Requirements Compared To Existing Facility Requirements And Recommended Practices*].

<sup>65</sup> New York allows owners and operators to perform a modified American Petroleum Institute Standard 653 inspection combined with monitoring well release detection for large field-constructed tanks.

mitigated by the SPCC regulation, which allows UST release detection as a method to meet its tank inspection requirement. The SPCC regulation requires owners and operators conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement, but does not specify a method, frequency, or leak rate. The UST regulation is more specific and requires periodic release detection testing of underground piping.

EPA thinks that other regulatory programs (such as SPCC and FAA) lack the necessary specificity or do not meet equivalency criteria we deem are necessary for these UST systems. Additionally, even though some A4A documents provide many recommended practices that owners and operators of airport hydrant systems and field-constructed tanks may follow for their fuel management programs, these practices are not regulatory requirements, and airports have the option of following them. Moreover, EPA developed a final UST regulation that is cost effective to the extent practical and is the least burdensome to owners and operators, yet still protects human health and the environment. This final UST regulation does not impose redundant requirements. Rather, it contains complementary requirements that will protect human health and the environment.

#### Effect on Airport Operations

One commenter suggested the requirements in the 2011 proposed UST regulation were not legally or technically viable for commercial airports. That commenter said EPA should develop a separate regulation specific to commercial airport hydrant systems. In addition, a few commenters were concerned that removing the deferral for airport hydrant systems would cause service disruptions due to installing release prevention and detection equipment. Those commenters also said performing release prevention and detection would cause massive service delays, affect military missions, and threaten national security and the National Airspace System.

Based on discussions with DoD prior to issuing the 2011 proposed UST regulation and talking to DoD and potentially affected airports after issuing it, EPA concluded that most facilities already have the necessary equipment to meet many of the requirements in the final UST regulation. EPA also concluded from those conversations that release detection is normally performed during service downtimes or when

<sup>62</sup> January 28, 2012 meeting with A4A.

operations are minimal. Some airport hydrant systems have the capability of transferring product flow to other sections of the airport hydrant system to avoid system downtime. DoD stated that leak testing is performed according to prescribed requirements in Florida and California and at least biennially in other states when funding allows. Where feasible, piping is normally tested in segments to meet testing leak rates; piping segments can be isolated to find leaks more efficiently. EPA learned that some airport hydrant systems are capable of bypassing areas when airport hydrant piping is being tested; this avoids total system shutdown and allows continued airport operation. In addition, many airport personnel perform daily operations and maintenance activities, such as hydrant pit inspections and leak monitoring, on airport hydrant system components to avoid product loss, ensure fuel quality, and ensure personnel safety.

This final UST regulation incorporates many of those tasks that operators normally perform regularly to prevent and detect leaks from these systems. However, to meet the final UST regulation, owners and operators may need to make minor modifications to their current activities. Since many airports have mechanisms in place and are already performing release monitoring, meeting requirements in the final UST regulation will not severely affect airport operations or cause service delays severe enough to significantly affect the military mission or disrupt the National Airspace System. EPA concluded that the information we gathered since issuing the 2011 proposed UST regulation supports regulating these systems as required in the final UST regulation. In addition, this final UST regulation includes changes to ensure compliance requirements are less disruptive and further mitigate concerns regarding service disruptions, such as adding options owners and operators may use to meet the release detection requirement.

#### Implementation Time Frame

EPA is aware that this final UST regulation adds new requirements for owners and operators, as well as implementing agencies which have not fully regulated airport hydrant systems and field-constructed tanks in the past. A few commenters voiced concerns that the proposed implementation time frames would not give owners and operators, or implementing agencies, adequate time to assess these systems and determine the proper course of action. EPA thinks providing a single

effective date is important because it reduces the burden on implementing agencies, owners, and operators to track various compliance deadlines. EPA is also allowing owners and operators who use periodic tightness testing for certain piping to phase in release detection requirements up to seven years. Additionally, EPA thinks three years gives owners and operators sufficient time for planning and installing necessary equipment to meet the requirements in this final UST regulation.

#### Other Comments

Commenters generally supported changing the applicability date for previously closed systems of airport hydrant systems and field-constructed tanks, giving implementing agencies the flexibility to require a site assessment and proper closure of systems closed between the effective date of the 1988 UST regulation and this final UST regulation. EPA agrees with commenters. As a result, this final UST regulation requires owners and operators of field-constructed tanks and airport hydrant systems, which were permanently closed before the effective date of this final UST regulation, to conduct a site assessment and close the UST system according to the closure requirements if directed to do so by the implementing agency.

In the 2011 proposed UST regulation, EPA asked commenters if we should consider alternative options for closing very large UST systems in place. Most commenters recommended that large field-constructed tanks either be removed or filled with an inert solid material to prevent releases of residual contamination to the environment. Others suggested EPA allow some flexibility when closing these UST systems in place. EPA agrees with commenters that implementing agencies may need to have more flexibility in addressing these systems at closure. EPA is modifying the closure requirement in § 280.71(b) of the final UST regulation to allow closure in place in a manner approved by the implementing agency. This addition provides implementing agencies the option to determine that owners and operators may close the UST system in place without filling it with an inert solid material.

One commenter recommended that EPA, in the final UST regulation, directly reference the military construction standard associated with field-constructed tank design and construction discussed in the preamble to the 2011 proposed UST regulation. EPA agrees with the commenter and is

adding the military construction criteria *UFC 3-460-01—Petroleum Fuel Facilities* to this final UST regulation.<sup>66</sup> Although design standards are now available for aboveground field-constructed tanks, EPA is not aware of standards written according to a national code of practice developed by a nationally recognized or independent testing laboratory for non-military field-constructed tanks and airport hydrant systems. If demand arises and a commercial standard is not developed to address the need, owners and operators may use the UFC, where applicable.

#### Release Detection

##### Background

In the preamble to the 1988 UST regulation, EPA discussed the large volumes of product throughput, large capacities, and long lengths of large diameter piping for airport hydrant systems. At the time, EPA believed release detection was not feasible for airport hydrant systems. These systems were monitored for releases periodically, but no single leak test existed as an industry standard. Inventory control was often used, but its sensitivity was limited due to the large product volumes airport hydrant systems typically handle. To allow more time for gathering information, EPA in the 1988 UST regulation deferred regulating airport hydrant systems from release detection requirements in subpart D. EPA also deferred UST systems with field-constructed tanks from most requirements in the 1988 UST regulation, due to a lack of appropriate release detection methods. At that time, EPA believed the majority of release detection methods applied to factory built tank systems and did not adequately work for UST systems with field-constructed tanks or airport hydrant systems.

##### Challenges of Conventional Release Detection Methods

Standard release detection methods can successfully test and detect releases on pressurized piping at commercial service stations, but that is not the case for airport hydrant systems and large diameter piping associated with field-constructed tanks. For a variety of reasons, the piping of most airport hydrant systems and field-constructed tanks cannot meet release detection

<sup>66</sup> UFC 3-460-01—*Petroleum Fuel Facilities* is a military construction criteria that includes basic requirements for the design of fueling systems; the design of receiving, dispensing, and storage facilities; ballast treatment and sludge removal; corrosion and fire protection; and environmental requirements.

requirements in the 1988 UST regulation. High product throughput makes it difficult and expensive to achieve the same leak rate thresholds established for traditional UST systems within a reasonable time frame. Product temperature fluctuations present challenges for release detection testing of conventional underground piping. However, release detection for piping of airport hydrant systems and large diameter piping associated with field-constructed tanks poses greater challenges. As temperatures fluctuate, product expands or contracts, increasing or decreasing product volume and pressure. The magnitude of piping associated with these systems creates an even greater temperature fluctuation; there are varying temperature gradients throughout the length of piping. Fluctuating line pressure during a release detection test can mask an existing release or falsely indicate one occurred. In addition, the out of service period needed to test airport hydrant piping could range from one to several days after the last product transfer.

Removing airport hydrant systems from service for extended periods will greatly impede their purpose of rapid and timely delivery of fuel to aircraft. When using pressure based testing methods to produce accurate leak test results, airport hydrant system piping needs to be isolated in appropriately sized segments. Some airport hydrant systems have numerous isolation points with connections for release detection equipment. Others have longer underground piping segments with isolation valves for testing located up to 0.5 miles apart. The greater the volume of a segment, the more time it takes to obtain a valid result at a given leak rate. Although technology is available, it may be cost prohibitive and require significant facility down time for owners and operators to monitor airport hydrant systems for releases at the rates and frequencies required in the 1988 UST regulation.

EPA also recognizes that most release detection methods for factory built tanks are capable of monitoring UST systems with field-constructed tanks up to 50,000 gallons. After evaluating current methods, EPA realized existing release detection options for tanks in subpart D of the 1988 UST regulation are generally not applicable to UST systems greater than 50,000 gallons because most methods are limited by tank capacity. EPA acknowledges the complexities in performing release detection on tanks significantly larger than 50,000 gallons. It is critical to allow sufficient time for a tank to reach a state of equilibrium prior to performing a test. As tank size

increases, the time for a tank to reach an equilibrium increases significantly. Based on discussions with release detection vendors, many larger tanks require multiple inactive days to yield an accurate test result.

DoD owns most UST systems with field-constructed tanks. Taking these tanks out of service for multiple days to meet the 1988 release detection requirement would, in some cases, impede DoD's mission, be impractical to sustain, and result in significant costs.

#### Release Detection Is Now Available

While release detection used for conventional USTs may not work well for airport hydrant systems and field-constructed tanks greater than 50,000 gallons, release detection methods specifically designed for these UST systems are now available. Over the last 25 years, the petroleum services industry has developed release detection technologies for airport hydrant systems and field-constructed tanks. The NWGLDE lists *Large Diameter Line Leak Detection Method (6 Inches Diameter Or Above)* and *Bulk Underground Storage Tank Leak Detection Method (50,000 Gallons Or Greater)*, both of which identify methods capable of detecting releases from airport hydrant systems and field-constructed tanks.<sup>67</sup> EPA contacted several vendors to determine the strengths and limitations of release detection methods for these UST systems. EPA also talked with DoD's Defense Logistics Agency (DLA) Energy<sup>68</sup> about challenges in addressing release detection requirements in states, such as California, which do not defer airport hydrant systems from release detection. Because they perform release detection on airport hydrant systems in other states, DLA Energy has significant information about airport hydrant system release detection. As of this final UST regulation, some state UST programs require release detection for UST systems with field-constructed tanks and airport hydrant systems.<sup>69</sup>

<sup>67</sup> National Work Group On Leak Detection Evaluation's List Of Leak Detection Evaluations For Storage Tank Systems. <http://www.nwglde.org/>.

<sup>68</sup> Defense Logistics Agency Energy was formerly known as Defense Energy Support Center.

<sup>69</sup> Tasks 2-4, Work Assignment 1-25: *Preliminary Assessment and Scoping of Data Related to Potential Revisions to the UST Regulations*; Industrial Economics (IEc) Inc. identified 17 state UST programs that regulate airport hydrant systems. EPA's Office of Underground Storage Tanks gathered additional information from seven of nine select state UST programs to identify the extent of the state's release detection requirements and compare those requirements to the release detection requirements in EPA's proposed 2011 UST regulation.

#### Feasibility of Proposed Release Detection Options for Piping

In order to allow owners and operators flexibility to meet the release detection requirement, EPA proposed these four alternatives for underground piping associated with airport hydrant systems and field-constructed tanks greater than 50,000 gallons:

- Pressure based line testing methods
- Continuous interstitial monitoring
- Automatic line leak detector combined with interstitial monitoring and
- Other methods approved by implementing agencies

EPA requested comment or additional data on the proposed release detection requirements to determine their feasibility. Several commenters said the options in the 2011 proposed UST regulation were insufficient and requested EPA provide options that offered owners and operators more choices. A4A provided EPA with the names of nine commercial airports that could be affected by the final UST regulation and the feasibility of applying the release detection methods discussed in the 2011 proposed UST regulation to these airports. This information helped EPA further refine this final airport hydrant system requirements, including release detection.

A4A stated that the only feasible choice EPA provided was pressure based methods and substantial retrofits would be required to meet the requirements at Chicago O'Hare International Airport (ORD), John F. Kennedy International Airport (JFK), and possibly other airports. However, EPA through our analysis and in depth discussions with those airports, thinks the airport hydrant system at JFK, as currently configured, may not meet the definition of an UST in this final UST regulation; this means the requirements would not apply. In addition, if planned capital upgrades are completed on one of ORD's airport hydrant systems, that system may not meet the definition of an UST and would not be subject to this final UST regulation. If configurations for either of these airport hydrant systems change in the future, the owner and operator must re-evaluate the system to determine if it meets the definition of UST in this final UST regulation. Owners and operators are responsible for determining whether their airport hydrant systems meet the definition of an UST and, if necessary, comply with this final UST regulation.

As a result of comments and while developing the final UST regulation, EPA met with DoD, A4A, personnel

representing potentially impacted commercial airports, and release detection vendors to develop release detection methods for the final UST regulation and determine how or if commercial airports and DoD facilities could achieve compliance within the specified time frames.<sup>70 71 72 73 74</sup> From those discussions, EPA found that most, if not all, of the potentially affected commercial airports have or will have mechanisms in place to achieve compliance with the release detection requirements in this final UST regulation. In addition, owners and operators already implement release detection according to technical requirements in states where airport hydrant systems are not deferred. EPA found that many of these airport hydrant systems perform a type of inventory management and hydrostatic testing of the piping system to detect pressure changes in the UST system. EPA determined that although the 1988 UST regulation did not require airport hydrant system owners and operators perform these tests, both DoD facilities and commercial airports have already been performing various fuel management methods to monitor and track fuel inventories.

#### Release Detection Options for Piping in the Final UST Regulation

Based on comments, EPA is providing flexibility for owners and operators of piping associated with airport hydrant systems and field-constructed tanks greater than 50,000 gallons to meet the release detection requirements. This final UST regulation modifies the piping release detection options in the 2011 proposed UST regulation and incorporates some of the methods currently used at commercial airports and DoD facilities. Owners and operators of these systems may use existing piping release detection options provided in subpart D (except for passive groundwater and vapor monitoring, which must be combined with inventory control as described below), or they may use alternative piping release detection methods in § 280.252(d)(2). EPA thinks these options are reasonable and represent an appropriate balance of practicality and

protectiveness. Piping associated with field-constructed tanks 50,000 gallons or less in capacity must use the release detection options listed in subpart D.

#### Pressure Based Testing

The final UST regulation allows owners and operators to perform pressure based testing methods according to performance criteria dependent on volume of the line segment tested. These criteria provide specific performance thresholds for both semiannual and annual testing. Owners and operators may perform semiannual or annual line testing at or above operating pressure with a probability of detection of 0.95 and a probability of false alarm of 0.05. This method allows owners and operators to meet a variable leak rate based on piping test section volume. The leak rate ranges from 1 to 3 gallons per hour, depending on piping volume for semiannual testing and from 0.5 to 1.5 gallons per hour for annual testing. The final UST regulation establishes 3 gallons per hour as the maximum threshold because the majority of available testing methods are capable of meeting this leak rate.

For the first six years (or two test periods), piping segments that cannot meet a 3 gallons per hour threshold are allowed to meet a higher threshold of up to 6 gallons per hour. Available methods are capable of testing segments to a leak rate of 6 gallons per hour. The higher threshold provides for use of existing test methods during the first six year period. Six years will provide owners and operators time to upgrade their piping systems to meet the up to 3 gallons per hour threshold for semiannual testing. Between years six and seven, owners and operators must conduct one additional tightness test that, at a minimum, meets the semiannual testing threshold. In the seventh year, owners and operators must begin meeting the semiannual or annual line tightness testing requirements according to the requirements in § 280.252(d)(2)(i). EPA is providing a three year phase-in period for the remaining release detection options, because these methods will not require significant construction or upgrades for implementation.

EPA asked commenters whether other release detection options should be considered for underground piping associated with airport hydrant systems and field-constructed tanks greater than 50,000 gallons. Based on comments, EPA is adding inventory control, groundwater and vapor monitoring, and other methods for piping as release detection options in this final UST regulation.

#### Inventory Control

EPA reviewed performance standards for daily inventory control procedures used by DoD and the commercial airports identified by A4A.<sup>75 76</sup> Based on performance standards for daily inventory control procedures performed by both DoD and A4A, EPA is allowing inventory control as part of a combination method of release detection. EPA chose 0.5 percent of flow through as the performance standard for inventory control because this value represents the maximum tolerance allowed under the performance standard for products typically stored or handled by airport hydrant systems. Owners and operators may conduct inventory control according to DoD Directive 4140.25, ATA's Airport Fuel Facility Operations and Maintenance Guidance Manual, or equivalent procedures. EPA is allowing this method in combination with either a pressure based line tightness test using the leak rates from the semiannual test in § 280.252(d)(2)(i) at least once every two years, or passive groundwater or vapor monitoring once every 30 days as described below.

#### Groundwater and Vapor Monitoring

EPA proposed to phase out groundwater and vapor monitoring as release detection methods in the 2011 proposed UST regulation. However, this final UST regulation retains these methods with modifications. See section D-6 for more information. These methods are also allowed with some modifications in subpart K. EPA divided vapor monitoring into two categories: Active monitoring for chemical markers or tracers and passive monitoring for stored product in the tank system. Owners and operators of these systems

<sup>75</sup> DoD's Bulk Petroleum Management Policy—DoD 4140.25—M, Volume II—*Petroleum Management*, Chapter 10—Accountability (June 22, 1994) is accessible on line at: <http://www.dtic.mil/whs/directives/corres/pdf/414025-m-vol2-chapter10.pdf>. This standard recognizes that petroleum products are subject to losses and gains. The tolerance factor that represents the amount of fuel which might be lost or gained under normal conditions varies by product and status of fuel (*i.e.*, storage or in transit). These values in the policy represent standard tolerances (*i.e.*, system flow-through) for various products in transit and storage: (1) Aviation and motor gas = 0.5 percent and 0.5 percent; (2) JP4 = 0.5 percent and 0.3 percent; (3) Jet Fuel, Distillates, Residuals = 0.5 percent and 0.25 percent; and (4) JP5, JP8, DF2, F76, etc. = varies by individual agreements with airports and 0.5 percent.

<sup>76</sup> EPA reviewed Airlines For America Guidance—*ATA Airport Fuel Facility Operation and Maintenance Guidance Manual*, Revision 2004.1; and ATA Spec 123: *Procedures for the Accounting of Jet Fuel Inventory 2011.2*. The two documents provide guidance for operators to investigate, report, or explain any variances exceeding  $\pm 0.1$  percent.

<sup>70</sup> January 28, 2012 and March 29, 2012 meetings with representatives from Airlines for America.

<sup>71</sup> February 28, 2013 and March 18, 2013 meetings with DoD's Defense Logistics Agency Energy.

<sup>72</sup> June 20, 2012 and May 19, 2013 meeting with Hansa Consult of North America, LLC.

<sup>73</sup> June 20, 2012 meeting with VISTA Precision Solutions.

<sup>74</sup> August 15, 2012 meeting with Ken Wilcox and Associates.

may use active vapor monitoring methods characterized by testing or monitoring of chemical markers or a tracer compound placed in the tank system, according to § 280.43(e) to detect a release of at least 0.1 gallon per hour with probabilities of detection and false alarm of 0.95 and 0.05, respectively. Owners and operators choosing this option must conduct this test at least once every two years. This method may be used as a stand-alone method of release detection.

Owners and operators may also combine passive vapor or groundwater monitoring with inventory control, described above, that can detect a release of at least 0.5 percent of flow through at least every 30 days. Passive vapor monitoring or groundwater monitoring must be conducted at least every 30 days according to § 280.43(e) or (f), respectively.

#### Other Methods for Piping

The final UST regulation maintains the option for owners and operators to use alternative methods of release detection for piping approved by the implementing agency, as discussed in the 2011 proposed UST regulation. This provides flexibility for owners and operators to comply by using methods or a combination of methods equivalent to the requirements in § 280.252(d)(2). EPA recognized that other methods not included in § 280.252(d)(2) could be acceptable, as long as they are as effective and are approved by implementing agencies. The performance criteria for piping release detection methods in § 280.252(d)(2) provide owners and operators with information about how to demonstrate the effectiveness of release detection methods that must be approved by the implementing agency.

#### Proposed Release Detection Options for Piping Not Included in the Final UST Regulation

Because piping segments associated with airport hydrant systems and field-constructed tanks can contain large volumes of regulated substances, EPA asked commenters if it was feasible to require ALLDs to detect a leak at 3 gallons per hour at 10 pounds per square inch line pressure within one hour or equivalent. EPA anticipated receiving information on the appropriate leak rate for ALLDs on this piping. EPA did not receive any indication that current performance standards of ALLDs could be modified for these systems. Although some portions of existing systems may be able to use this option, EPA agrees it is not feasible to use an ALLD with interstitial

monitoring on piping associated with airport hydrant systems and field-constructed tanks.

This final UST regulation modifies the 2011 proposed UST regulation; owners and operators of airport hydrant systems or piping associated with field-constructed tanks greater than 50,000 gallons are not provided specific requirements in this final UST regulation for using continuous interstitial monitoring and the combination of automatic line leak detectors with interstitial monitoring for piping. Many of these systems lack secondary containment and automatic line leak detectors cannot adapt to the operating pressures of these systems. In the 2011 proposed UST regulation, EPA asked if testing the piping for airport hydrant systems and field-constructed tanks at operating pressure was sufficient. The 1988 UST regulation requires owners and operators test conventional systems at one and a half times operating pressure. EPA is aware that airport hydrant system piping operates at high pressures and agrees with commenters who stated that testing above operating pressure might be infeasible. This final UST regulation requires owners and operators to test these systems at least at operating pressure, because these large piping systems operate at pressures much higher than conventional gasoline stations. However, EPA is allowing testing at or above operating pressure, but is not providing a set value. Professional testers can decide the appropriate pressure to test these systems, as long as the pressure is at least the operating pressure of the system.

#### Release Detection Requirements for Tanks Associated With Airport Hydrant Systems and Field-Constructed Tanks

This final UST regulation establishes release detection requirements for tanks associated with airport hydrant systems and field-constructed tanks. Airport hydrant systems may consist of a series of large capacity shop fabricated tanks, although some airport hydrant systems use field-constructed tanks. Shop fabricated tanks and field-constructed tanks with a capacity less than or equal to 50,000 gallons must meet the requirements in subpart D. Field-constructed tanks with capacity greater than 50,000 gallons must either be monitored using release detection methods in subpart D (except for passive groundwater and vapor monitoring which must be combined with inventory control as described below) or use one of the alternative

methods for tanks listed at § 280.252(d)(1).

#### Feasibility of Proposed Release Detection Options for Field-Constructed Tanks

To allow owners and operators more flexibility in meeting the release detection requirement, EPA proposed these four alternatives for UST systems with field-constructed tanks greater than 50,000 gallons:

- Annual tank tightness test
- Automatic tank gauging system that can detect a 1 gph leak combined with a tank tightness test every three years
- Automatic tank gauging system that can detect a 2 gph leak combined with a tank tightness test every two years and
- Other methods approved by the implementing agency

EPA requested comment or additional data on the proposed release detection options to determine their feasibility. Most commenters thought the release detection options were appropriate and sufficient. One commenter thought EPA should include chemical marker or tracer testing. Another commenter thought EPA should expand the types of release detection methods specified in the final UST regulation to include use of sensors, probes, monthly visual inspections, or other methods approved by the implementing agency.

EPA met with and obtained information from DoD and release detection vendors throughout the regulatory process. EPA researched suggested release detection options and standard practices conducted by DoD following the public comment period for the 2011 proposed UST regulation. EPA found that these facilities perform inventory management on their UST systems. EPA determined that although not performed as specified in the 1988 UST regulation, some DoD facilities are performing fuel management methods to monitor and track fuel inventories for their field-constructed tanks.<sup>77 78</sup>

#### Release Detection Options for Field-Constructed Tanks in the Final UST Regulation

Based on comments and additional information from DoD as well as commercial airports about their operations, EPA is including in this final UST regulation all release

<sup>77</sup> Final Report—*Validation of the Low-Range Differential Pressure (LRDP) Leak Detection System for Small Leaks in Bulk Fuel Tanks Environmental Security Technology Certification Program*, U.S. Department of Defense.

<sup>78</sup> DoD 4140.25-M: *Management of Bulk Petroleum Products, Storage, and Distribution Facilities*, Volume V [http://www.dtic.mil/whs/directives/corres/html/414025m\\_vol1\\_3.html](http://www.dtic.mil/whs/directives/corres/html/414025m_vol1_3.html).

detection options discussed in the 2011 proposed UST regulation. EPA is also adding three other options to this final UST regulation. Owners and operators of field-constructed tanks less than or equal to 50,000 gallons must meet the release detection requirements in subpart D. Owners and operators of field-constructed tanks greater than 50,000 gallons must use the alternative release detection methods described in subpart K or the release detection options in subpart D (except that groundwater and vapor monitoring must be used in combination with inventory control as described below). EPA thinks these options are reasonable and will quickly detect releases when they occur.

#### Tank Tightness Testing

In the 2011 proposed UST regulation, EPA discussed the option of owners and operators performing annual tank tightness testing that can detect a 0.5 gallon per hour leak rate. EPA proposed this performance standard based on information about leaks from several field-constructed tanks. The information indicated leak rates from the tanks ranged from 0.31 gph to 10 gph, with a median leak rate of 0.58 gph. EPA determined that most available methods were capable of meeting the proposed leak rate of 0.5 gph. EPA did not receive comments regarding the performance standard during the public comment period. The final UST regulation retains the option for owners and operators to perform annual underground tank tightness testing that can detect a 0.5 gallon per hour leak rate.

#### Automatic Tank Gauging Combinations with Tank Tightness Testing

This final UST regulation allows owners and operators to combine an automatic tank gauging system with a tank tightness test that achieves different leak rates during different periods of performance. One combination uses an automatic tank gauging system performing release detection at least every 30 days that can detect a leak rate less than or equal to 1 gallon per hour with a tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every three years. Another combination couples an automatic tank gauging system performing release detection at least every 30 days that can detect a leak rate less than or equal to 2 gallons per hour with a tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every two years. This automatic tank gauging requirement is different from the release detection requirement in the 1988 UST regulation for factory built tanks. These leak rates

and time frames for release detection testing are appropriate because they will detect releases within a reasonable time frame, given the large tank sizes and time needed to perform testing on these tanks.

#### Inventory Control

This final UST regulation allows inventory control combined with one of these methods: passive groundwater monitoring every 30 days, passive vapor monitoring every 30 days, or a 0.5 gallon per hour tank tightness test performed at least once every two years. The inventory control option must meet the same requirements as inventory control for piping associated with airport hydrant systems and field-constructed tanks described in the *Release Detection Options for Piping in the Final UST Regulation* section above.

#### Groundwater and Vapor Monitoring

This final UST regulation allows active vapor monitoring for tanks using the same requirements as described in the *Release Detection Options for Piping in the Final UST Regulation* section above. In addition, owners and operators may also use a combination method incorporating inventory control and passive vapor monitoring or groundwater monitoring using the requirements described in the *Release Detection Options for Piping in the Final UST Regulation* section above.

#### Other Methods for Field-Constructed Tanks

Implementing agencies may approve another method if the owner and operator demonstrate the method can detect a release as effectively as any of the other five methods described in the *Release Detection Options for Field-Constructed Tanks* section. In comparing methods, an implementing agency shall consider the size of release the method can detect and frequency and reliability of detection. Other methods are described in *Other Methods for Piping*.

#### Release Detection Recordkeeping

This final UST regulation requires owners and operators maintain records of release detection for field-constructed tanks and airport hydrant systems in accordance with § 280.45. The results of any sampling, testing, or monitoring must be maintained for at least one year except as follows: Tank tightness testing; line tightness testing; and vapor monitoring using a tracer compound placed in the tank system must retain records until the next test is conducted. EPA is requiring owners and operators maintain these records until the next

test is conducted because owners and operators can choose different time frames to conduct release detection testing. This additional flexibility results in some testing occurring at frequencies ranging from less than one year to up to three years.

#### Release Prevention

As with all other regulated UST systems, this final UST regulation requires airport hydrant systems and field-constructed tanks meet corrosion protection, spill, and overfill requirements, as well as walkthrough inspections.

#### Corrosion Protection

This final UST regulation requires all airport hydrant systems and field-constructed tanks that routinely contain regulated substances and are in contact with the ground to meet corrosion protection requirements in § 280.252(b)(1). Metal tanks and piping which are encased or surrounded by concrete have no metal in contact with the ground and are not subject to the corrosion protection requirements. Because interim prohibition for deferred UST systems in the 1988 UST regulation has been in effect since May 1985, many of these systems are already equipped with corrosion protection (that is, constructed of: Non-corrodible material, coated and cathodically protected steel, fiberglass reinforced plastic, or steel tank clad with fiberglass reinforced plastic). In this final UST regulation, EPA renames § 280.11 to *Installation requirements for partially excluded UST systems*. For corrosion protection, airport hydrant systems and field-constructed tanks must meet the requirements in § 280.252(b)(1). Owners and operators must meet this requirement within three years of the effective date of this final UST regulation.

This final UST regulation does not allow an internal lining as a method for meeting the corrosion protection upgrade requirement. EPA is not allowing an internal lining as corrosion protection because it does not protect steel in contact with the ground from corroding and causing a release to the environment. Field-constructed tanks and tanks associated with airport hydrant systems, which are not upgraded according to § 280.252(b), and are installed on or before the effective date of this final UST regulation must be permanently closed according to § 280.70.

#### Spill and Overfill Prevention

EPA concludes that using properly functioning equipment, which is

operated according to manufacturer guidelines, is necessary to protect human health and the environment. After discussions with industry, DoD, and commercial airport personnel, EPA understands that existing airport hydrant systems are generally already equipped with spill and overflow prevention equipment to prevent spills and overfills. This final UST regulation requires owners and operators of airport hydrant systems and field-constructed tanks to have spill and overflow prevention equipment and conduct testing or inspections of the equipment. This will ensure the systems and tanks operate properly, contain releases, and decrease the likelihood of a leak into the environment. Owners and operators must install spill and overflow prevention equipment and conduct the first test or inspection within three years of the effective date of this final UST regulation, then at least once every three years thereafter. For more information on spill prevention equipment testing and overflow prevention equipment inspections, see sections B-2 and B-3, respectively.

#### Walkthrough Inspections

Owners and operators need to properly operate and maintain their UST system equipment in order to prevent and quickly detect releases. Therefore, this final UST regulation adds requirements for owners and operators of airport hydrant systems and field-constructed tanks to perform periodic walkthrough inspections to prevent and quickly detect releases.

EPA found that owners and operators of airport hydrant systems are required to ensure safety and fuel quality, and frequently inspect these systems as part of other requirements and recommendations to ensure system components are operating properly. In addition, EPA understands that airport hydrant systems and some field-constructed tank facilities are already performing operation and maintenance inspections that ensure their systems and associated spill and overflow equipment are operating properly. Thus, EPA found these requirements will impose little, if any, additional burden at these facilities. This final UST regulation requires owners and operators of airport hydrant systems and field-constructed tanks conduct walkthrough inspections according to § 280.36. In addition, EPA is requiring owners and operators inspect hydrant pits and hydrant piping vaults. These areas are unique to airport hydrant systems. It is important to look at hydrant pits and hydrant piping vaults as part of periodic walkthrough

inspections to ensure these areas are: Free of liquid and debris, not damaged, and free of leaks. Owners and operators must inspect these areas at least once every 30 days if OSHA confined space entry is not required or at least annually if OSHA confined space entry is required. See 29 CFR part 1910 for information about OSHA confined space entry. Some owners and operators already periodically check these areas using the ATA guidance manual, *Airport Fuel Facility Operations and Maintenance Guidance Manual*. Owners and operators must conduct the first inspection within three years of the effective date of the final UST regulation. For more information on walkthrough inspections, see section B-1.

#### Secondary Containment

This final UST regulation does not require secondary containment for new and replaced piping associated with field-constructed tanks greater than 50,000 gallons in capacity or piping associated with airport hydrant systems. EPA understands this piping typically is larger diameter and runs for long distances, making it difficult to slope the piping to an interstitial monitoring area. In addition, EPA understands it is difficult to keep water out of the interstitial area of long piping runs. Since nearly all this piping is steel, corrosion can occur in the interstitial area when an electrolyte, such as water, is in the interstitial area. This corrosion can significantly shorten the piping's operational life. Corrosion protection on the outside of the piping protects the part of the piping in contact with the ground from corrosion, but does not protect the inside part of piping from corrosion. To prevent corrosion caused by water in the interstitial area, owners and operators would need to add corrosion protection inside the interstitial area of piping, which EPA realizes would be difficult to do. Given these issues, EPA has determined that requiring secondary containment for these piping runs is not practical.

However, EPA is requiring secondary containment for new and replaced piping associated with field-constructed tanks 50,000 gallons or less that do not feed airport hydrant system piping. EPA understands that new, smaller field-constructed tanks, such as those constructed within tanks following permanent closure of an existing UST, typically have piping similar to that installed at commercial gasoline stations. This piping can effectively meet the secondary containment requirements and better protect the

environment. For more information, see section A-2, Secondary Containment.

#### Notification

The 1988 UST regulation did not require owners of airport hydrant systems or field-constructed tanks to comply with the notification requirements of § 280.22, which included certifying proper installation of airport hydrant systems. The 2011 proposed UST regulation required owners and operators of airport hydrant systems and field-constructed tanks installed prior to the effective date of the final UST regulation provide notification of existence to implementing agencies within 30 days of the effective date of this final UST regulation. This final UST regulation modifies the 2011 proposed UST regulation by requiring owners and operators provide a one-time notification of existence to implementing agencies no later than 3 years after the effective date of this final UST regulation. EPA agrees with commenters that airport hydrant system owners and operators need more than 30 days to provide the one-time notification of existence. This change allows owners and operators, as well as implementing agencies, time to identify airport hydrant systems covered by the final UST regulation and gives implementing agencies time to include these systems in their inventories. The final UST regulation does not consider currently installed tanks, including airport hydrant systems, as new UST systems. Therefore, EPA is requiring owners and operators only certify proper installation for airport hydrant systems and field-constructed tanks installed on or after the effective date of the final UST regulation according to § 280.22. In addition, EPA is requiring owners notify within 30 days of ownership change. See section D-3 for more information on notification requirements.

#### Financial Responsibility

Because EPA is eliminating the deferral for airport hydrant systems and field-constructed tanks, they are no longer be excluded from the financial responsibility requirements in subpart H. Owners and operators who install these UST systems after the effective date of this final UST regulation must comply with the financial responsibility requirements at installation. Owners and operators of airport hydrant systems and field-constructed tanks in use as of the effective date of this final UST regulation must have financial responsibility when they submit the one-time notification of existence for

these systems. However, subpart H exempts federal and state entities, which means that federal and state owners and operators of airport hydrant systems and field-constructed tanks do not have to meet the financial responsibility requirement.

#### Operator Training

EPA is aware that commercial airports are required to follow fuel facility training requirements of 14 CFR part 139; however, those requirements do not cover specifics of the UST requirements. This final UST regulation requires owners and operators of airport hydrant systems and field-constructed tanks meet the operator training requirements of subpart J. Owners and operators of some airport hydrant systems that are considered underground storage tanks may have already complied with state operator training requirements. For example, personnel from General Mitchell Field in Wisconsin report that operators have received Wisconsin class A and B operator training certification. All owners and operators must begin meeting this requirement not later than three years after the effective date of this final UST regulation. For more information see section A-1, Operator Training.

#### Partially Excluded Components

EPA regulates UST systems, including tanks and underground piping, in 40 CFR part 280 and aboveground tanks in 40 CFR part 112 (Oil Pollution Prevention). Facilities with greater than 1,320 gallons of aboveground oil storage capacity that could reasonably be expected to discharge oil into navigable waters or adjoining shorelines are subject to the SPCC regulation under the authority of the Clean Water Act.<sup>79</sup> The SPCC regulation includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges into navigable waters and adjoining shorelines. The SPCC regulation also requires regular inspections of aboveground valves, piping, and appurtenances along with integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement. Facilities regulated by the SPCC regulation must also prepare and maintain a written SPCC plan that includes measures to prevent, prepare for, and respond to oil discharges that

threaten navigable waters or adjoining shorelines.

Aboveground storage tanks associated with airport hydrant systems and field-constructed tanks covered in this final UST regulation do not have to meet many of the requirements in the UST regulation because they are neither beneath the surface of the ground, nor in contact with the ground. For these reasons, the SPCC regulation is the most effective means of addressing the aboveground storage tanks associated with UST systems. Airport hydrant systems that do not meet the definition of UST system because the underground portion is less than 10 percent of the system capacity may be subject to the SPCC regulation for both the aboveground and underground portions of the system. Underground storage tank components such as hydrant pits and piping vaults are considered part of the UST system and subject to the requirements in 40 CFR part 280.

#### Complementary Regulation of Partially Buried Tanks

Partially buried (also called partially covered) field-constructed tanks may be regulated by both this final UST regulation and the SPCC regulation. The SPCC regulation exempts only completely buried storage tanks subject to all of 40 CFR part 280.<sup>80</sup> Additionally, the SPCC regulation covers tanks situated on top of the ground's surface or partially buried (for example, bunkered, also referred to as mounded tanks) and considers these to be aboveground storage tanks. If 10 percent or more of the total capacity of the tank or tanks and underground piping is underground, the tank system meets the definition of an UST regulated by 40 CFR part 280 or state equivalent program approved under 40 CFR part 281. Therefore, these containers or systems are covered by both SPCC and UST regulations. These regulations are complementary because the SPCC regulation focuses on oil discharges that could impact navigable waters or shorelines, while the UST regulation focuses primarily on day-to-day maintenance and operation to prevent releases that impact soil and groundwater.

#### Change from Deferred to Partially Excluded

The 2011 proposed UST regulation used the term deferred for aboveground

storage tanks associated with airport hydrant systems and field-constructed tanks considered to be UST systems. The proposal indicated that although these aboveground storage tanks would be subject to some parts of the final UST regulation, EPA intended to continue evaluating whether to fully regulate them in the future. EPA reconsidered these aboveground storage tanks and is making the final determination that the SPCC requirements are the most effective means for addressing oil discharges from aboveground storage tanks. This final UST regulation excludes from subparts B, C, D, E, G, J, and K aboveground storage tanks associated with airport hydrant systems and field-constructed tanks. Aboveground storage tanks that are part of an UST system must continue to meet the requirements of subparts A and F.

#### 3. Wastewater Treatment Tank Systems that Are Not Part of a Wastewater Treatment Facility Regulated Under Sections 402 or 307(b) of the Clean Water Act

In the 2011 proposed UST regulation, EPA removed the existing deferral in § 280.10(c)(1) for wastewater treatment tank systems that are not part of a wastewater treatment facility regulated under sections 402 or 307(b) of the Clean Water Act. Since the 1988 UST regulation, owners and operators of these systems (hereafter referred to as wastewater treatment tanks) were deferred from complying with 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*); C (*General Operating Requirements*); D (*Release Detection*); E (*Release Reporting, Investigation, and Confirmation*); G (*Out-of-Service UST Systems and Closure*); and H (*Financial Responsibility*). Owners and operators have been required to comply with requirements for interim prohibition and release response and corrective action (40 CFR part 280, subparts A and F) since the effective date of the 1988 UST regulation. However, removing the deferral, as discussed in the 2011 proposed UST regulation, would have required owners and operators comply with all subparts of 40 CFR part 280.

#### Change from Deferred to Partially Excluded

The 1988 UST regulation used the term deferred for wastewater treatment tanks. Although these tanks were subject to some parts of the UST regulation, EPA intended to continue evaluating whether or not to regulate these tanks at a future date. EPA reconsidered these tanks and is making a final determination. EPA is excluding

<sup>79</sup> <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=b843807afdc641b203ffec44aa671d36&rgn=div5&view=text&node=40:23.0.1.1.7&idno=40>.

<sup>80</sup> 40 CFR 112.2 defines completely buried as any container completely below grade and covered with earth, sand, gravel, asphalt, or other material. Containers in vaults, bunkered tanks, or partially buried tanks are considered aboveground storage containers for purposes of the part.



these tanks from most requirements in this final UST regulation; however, the regulatory requirements in subparts A and F for these systems remain the same.

EPA deferred wastewater treatment tanks in the 1988 UST regulation due to uncertainty about the number of tanks that existed and the appropriateness of release detection for these systems. EPA's intent in removing the deferral for these tanks in the 2011 proposed UST regulation was to regulate them further, which would protect human health and the environment from discharges of regulated substances contained in these systems. EPA used the proposal to obtain additional information on these systems, and determine if there were appropriate release prevention and detection technologies available to fully regulate them according to the UST regulation. According to commenter responses, EPA determined that these tanks are often subject to other environmental regulations; it may not be technically feasible to install release prevention and detection equipment on these systems due to varying designs of these systems; and many of these systems contain mostly water and are not significant sources of contamination.

#### Installation Requirements for Partially Excluded Tanks

In the 1988 UST regulation, deferred wastewater treatment tanks were required to meet the interim prohibition requirements at § 280.11 (that is, corrosion protected, made of non-corrodible materials, or otherwise designed and constructed to prevent releases during the operating life of the facility due to corrosion or structural failure). Therefore, these tanks are already equipped with corrosion protection if they were installed after the effective date of the 1988 UST regulation. EPA thinks it is appropriate to maintain this requirement, which ensures these tanks are provided with some degree of corrosion protection to prevent releases into the environment. Because EPA is partially excluding these systems, the term interim prohibition no longer applies. Therefore, EPA is rewording the title of § 280.11 to *Installation requirements for partially excluded UST systems*. In addition, EPA is changing § 280.11(a) to reflect that these requirements are installation requirements rather than prohibitions on installation.

Many commenters did not support removing the deferral to regulate these UST systems and were unsure of the universe of wastewater treatment tanks. To address this concern, EPA developed

a February 2012 document describing wastewater treatment tanks that would have been regulated under the final UST regulation.<sup>81</sup> Several commenters also voiced concern that regulating these systems may result in unintended consequences (for example, impracticability of technical requirements and dual regulation) for owners and operators and implementing agencies. To help determine the feasibility of the 2011 proposed UST regulation, EPA asked several stakeholders about operating various types of wastewater treatment tanks.<sup>82 83 84</sup> EPA also gathered information from commenters about implementing other regulations that apply to these systems.<sup>85 86 87 88</sup> After considering commenters' feedback, EPA concluded that the historic level of regulation for these tanks is appropriate and provides adequate controls to ensure environmental protection.

This final UST regulation excludes owners and operators of wastewater treatment tanks from 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*); C (*General Operating Requirements*); D (*Release Detection*); E (*Release Reporting, Investigation, and Confirmation*); G (*Out-of-Service UST Systems and Closure*); H (*Financial Responsibility*); J (*Operator Training*); and K (*UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems*). EPA is basing this decision on maintaining the installation requirement (§ 280.11), other regulatory controls in place, and the additional information gathered. Owners and operators of wastewater treatment tank systems are still required to comply with subparts A (*Program Scope and Installation Requirements for Partially Excluded UST Systems*); and F (*Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances*).

<sup>81</sup> [http://www.epa.gov/oust/fedlaws/wwtts\\_2-29-12\\_final.pdf](http://www.epa.gov/oust/fedlaws/wwtts_2-29-12_final.pdf).

<sup>82</sup> April 2012 telephone conversation with Tom Groves, New England Interstate Water Pollution Control Commission.

<sup>83</sup> April 2012 telephone conversation with Ming Pan, Massachusetts Department of Environmental Protection.

<sup>84</sup> April 2012 telephone conversation with Joe Cerutti, Massachusetts Department of Environmental Protection.

<sup>85</sup> March 2012 telephone conversation with Kevin Brackney, Nez Perce Tribe.

<sup>86</sup> April 2012 telephone conversation with Chris Wiesberg, Missouri Department of Natural Resources.

<sup>87</sup> April 2012 telephone conversation with Mary Hansen, Washington State Department of Ecology.

<sup>88</sup> May 2012 telephone conversation with Candace Cady, Utah Department of Environmental Quality.

#### 4. USTs Containing Radioactive Material and Emergency Generator UST Systems at Nuclear Power Generation Facilities Regulated by the Nuclear Regulatory Commission

In the 2011 proposed UST regulation, EPA maintained the existing deferral in § 280.10(c)(2) and (3) for USTs containing radioactive material and for emergency generator UST systems at nuclear power generation facilities regulated by the United States Nuclear Regulatory Commission (NRC). Since the 1988 UST regulation, owners and operators of these tanks were deferred from complying with 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*); C (*General Operating Requirements*); D (*Release Detection*); E (*Release Reporting, Investigation, and Confirmation*); G (*Out-of-Service UST Systems and Closure*); and H (*Financial Responsibility*). Owners and operators have been required to comply with requirements for interim prohibition and release response and corrective action (40 CFR part 280, subparts A and F) since the effective date of the 1988 UST regulation.

After review of DOE Orders and NRC regulations,<sup>89</sup> EPA determined these requirements are comparable to EPA requirements for new and existing USTs regarding spill and overfill control (§ 280.30); operation and maintenance of corrosion protection (§ 280.31); and release detection (40 CFR part 280, subpart D). DOE established standards for facility operations that: protect the public and environment from exposure to radiation from radioactive

<sup>89</sup> Contract No. GS-10F-0309N, EPA Work Order No. EP-G10S-00001, Work Order No. 1004, Task 2, Subtask c, Quick Turnaround Request No. 6, *Release Response and Corrective Action*.

materials;<sup>90</sup> protect workers;<sup>91</sup> provide industrial safety;<sup>92</sup> and ensure compliance with applicable federal, state, and local laws, as well as Executive Orders and other DOE directives. DOE uses orders to regulate radioactive materials at their facilities.

NRC regulations at 10 CFR part 50 require that construction permit applications include a design and safety analysis, health and safety risk assessment of facility operations, and determination of the adequacy of controls for accidental releases into the environment for the life of the operating unit. NRC regulations also require facilities meet minimum design, installation, testing, and performance criteria.<sup>95</sup> Appendix B of 10 CFR part 50 requires a quality assurance report that includes testing of facility structures, systems, and components.<sup>96</sup> NRC also developed guidance documents to assist operators with licensing compliance.<sup>97</sup>

EPA was concerned with whether NRC and DOE cleanup standards for radionuclides adequately protect

groundwater<sup>98</sup> and was unfamiliar with how NRC regulates releases of petroleum products or enforces cleanup of releases.

The 1988 UST regulation contains prescriptive procedures UST owners and operators must follow in responding to releases into the environment. NRC regulations are performance-based actions; they identify performance measures that are designed to ensure an adequate safety margin and offer incentives for licensees to improve safety without formal regulatory intervention.<sup>101</sup> Accordingly, DOE created orders to supplement EPA regulations for USTs at DOE facilities already subject to the 1988 UST regulation.<sup>102</sup> NRC requires that facilities perform site remediation as part of the decommissioning process, but there are currently no NRC regulations that require remediation at active facilities, unless dose limits are exceeded.<sup>103</sup>

EPA concludes it is appropriate to continue requiring release response and corrective action for these tanks, if the need arises. Due to the sensitive nature of these facilities, implementing agencies have flexibility to establish appropriate response and remediation requirements for owners and operators at these facilities.

#### Move from Deferred to Partially Excluded

The 1988 UST regulation used the term deferred for USTs containing radioactive material and for emergency generator UST systems at nuclear power generation facilities regulated by the NRC. This indicated that although these tanks were subject to some parts of the UST regulation, EPA intended to continue evaluating the applicability of full regulation of these tanks at a future date. EPA reconsidered these tanks and is making a final determination. EPA is

excluding these tanks from most requirements in this final UST regulation; however, the regulatory requirements in subparts A and F for these systems remain the same.

#### Installation Requirements for Partially Excluded Tanks

In the 1988 UST regulation, deferred USTs containing radioactive material and emergency generator UST systems at nuclear power generation facilities regulated by NRC were required to meet the interim prohibition requirements of § 280.11 (that is, corrosion protected, made of non-corrodible materials, or otherwise designed and constructed to prevent releases during the operating life of the facility due to corrosion or structural failure). While NRC's regulation addresses design and installation standards, interim prohibition requirements have been in effect since the 1988 UST regulation. Accordingly, owners and operators have had to follow this requirement since the effective date of the 1988 UST regulation. EPA has no information suggesting that maintaining this requirement has been an issue for owners and operators. After considering commenters' feedback, EPA concluded that the historic level of regulation for these tanks is appropriate and provides adequate environmental controls to ensure environmental protection. Therefore, this final UST regulation continues to require that owners and operators of these tanks comply with the requirements of § 280.11. Because EPA is partially excluding these systems, the term interim prohibition no longer applies. Therefore, EPA is rewording the title of § 280.11 to *Installation requirements for partially excluded UST systems*. In addition, EPA is changing § 280.11(a) to reflect that these requirements are installation requirements rather than prohibitions on installation.

After considering comments and additional information, this final UST regulation excludes owners and operators of these tanks from 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*); C (*General Operating Requirements*); D (*Release Detection*); E (*Release Reporting, Investigation, and Confirmation*); G (*Out-of-Service UST Systems and Closure*); H (*Financial Responsibility*); J (*Operator Training*); and K (*UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems*). Owners and operators of these tank systems are still required to comply with subparts A (*Program Scope and Installation Requirements for Partially Excluded*

<sup>90</sup> DOE Order 435.1 Chg 1, *Radioactive Waste Management*, ensures management of DOE radioactive waste (i.e. high-level, transuranic, low-level, and the radioactive component of mixed waste) is consistent with Atomic Energy Act of 1954 responsibilities, in a manner that provides radiological protection from DOE operations. (see <https://www.directives.doe.gov/directives-documents/400-series/0435.1-BOrder-chg1>)

<sup>91</sup> DOE M 435.1-1 Admin Chg 2, *Radioactive Waste Management Manual*, further describes the requirements and establishes specific responsibilities for implementing DOE O 435.1, *Radioactive Waste Management*. It prescribes the following requirements and specific responsibilities for new or modified existing systems: Secondary containment designed to detect and contain releases, and compatible with material stored (Chapter II P(2)(b)); spill/overflow control (Chapter II(P)(2)(i)); release detection for tanks (Chapter II(Q)(2)(a)(1)), and other storage components (Chapter II(Q)(2)(c)); release detection for failed containment and/or other abnormal conditions (Chapter II(P)(2)(j)); monitoring and/or leak detection for secondary containment (Chapter IIP(2)(j)); corrosion protection (Chapter II(Q)(2)(a)(2),(3)); monitoring and physical inspections (Chapter II(T)) and corrective action (Chapter I(2)(F)(20)). (see <https://www.directives.doe.gov/directives-documents/400-series/0435.1-DManual-1-admchg2>.)

<sup>92</sup> DOE O 458.1 Admin Chg 3, *Radiation Protection of the Public and the Environment* (see <https://www.directives.doe.gov/directives-documents/400-series/0458.1-BOrder-AdmChg3>).

<sup>93</sup> 10 CFR part 835, *Occupational Radiation Protection* (see <http://www.ecfr.gov/cgi-bin/text-idx?SID=dc937acd7069e30635139ca1ee3a44a0&node=pt10.4.835&rgn=div5>).

<sup>94</sup> DOE O 440.1B Admin Chg 1, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees* (see <https://www.directives.doe.gov/directives-documents/400-series/0440.1-BOrder-b-admchg1>).

<sup>95</sup> see <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/radwaste.html>.

<sup>96</sup> *Ibid.*

<sup>97</sup> *Ibid.*

<sup>98</sup> February 1997 letter from EPA to the NRC expressing concerns over the NRC's proposal for increasing dose limits and eliminating the requirement to protect groundwater that could be used as drinking water.

<sup>99</sup> December 1997 letter from EPA to DOE expressing concerns that DOE's draft rule 10 CFR part 834 (Radiation Protection of the Public and the Environment) needs to be consistent with CERCLA and that inconsistencies exist between the draft rule and CERCLA and NCP guidance.

<sup>100</sup> October 2002 Memorandum of Understanding between EPA and NRC to identify the interactions for only the decommissioning and decontamination of NRC-licensed sites and ensure dual regulation does not occur regarding the cleanup and reuse of NRC-licensed sites.

<sup>101</sup> Contract No. GS-10F-0309N, EPA Work Order No. EP-G10S-00001, Work Order No. 1004, Task 2, Subtask c, Quick Turnaround Request No. 6, *Release Response and Corrective Action*.

<sup>102</sup> *Ibid.*

<sup>103</sup> *Ibid.*

UST Systems) and F (Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances).

This final UST regulation also amends § 280.10(c)(4) which refers to facilities licensed under 10 CFR part 50. This change is consistent with the regulatory citation listed in the Spill Prevention, Control, and Countermeasure provision in 40 CFR part 112 and also applies to installation of these tanks at NRC facilities in the future.

#### D. Other Changes

##### 1. Changes to Overfill Prevention Equipment Requirements

Through extensive stakeholder outreach, EPA identified vent line flow restrictors (also called ball float valves) as a significant concern for operability and safety. As a result, this final UST regulation modifies the 1988 UST regulation by eliminating vent line flow restrictors as an option for meeting the overfill prevention equipment requirement for new tank installations and when overfill prevention equipment is replaced. EPA makes this change to: reduce the frequency of UST releases due to operability issues, address system safety concerns, and address personnel safety concerns. Below are the issues:

- **Operability**—For a vent line flow restrictor to operate properly, the device must restrict the flow of regulated substance into the UST when the flow restrictor engages. If the tank top is not liquid or vapor tight, flow into the UST is not restricted because vapors continue to escape through non-tight areas. If vapors continue to escape from the UST, there is no pressure buildup in the vapor area of the tank, resulting in no reduced flow rate into the UST. Examples where non-tight tank tops may result in ineffective flow restrictors include: loose tank bungs or other tank top components; tanks with coaxial stage I vapor recovery installed; and tanks with both tank top and remote fill areas.

- **System safety**—Vent line flow restrictors can create safety concerns when they activate. USTs can become over pressurized and be damaged during deliveries when product is pumped into the tank. PEI's recommended practice for installation, RP 100, advises against using vent restriction devices because the vent line flow restrictor pressurizes the UST, creating a hazardous condition when the device operates as designed.

- **Personnel safety**—Delivery personnel can be sprayed with regulated substances when they disconnect the delivery hose from the fill pipe because

pressure can build up in the tank when the vent line flow restrictor activates.

Owners and operators may continue to use flow restrictors not in vent lines (such as flow restrictors in fill pipes), automatic shutoff devices, and high level alarms to meet the overfill prevention requirement for their UST systems.

Owners and operators using a vent line flow restrictor before the effective date of this final UST regulation may continue using it to meet the overfill prevention requirement, as long as it operates properly by restricting the flow of regulated substances into the UST when the device activates. Flow restrictors in vent lines must be periodically inspected for proper operation according to section B-3, Overfill Prevention Equipment Inspections. This means that the flow restrictor will need to be accessible to the person inspecting the overfill prevention device. In addition, owners and operators may continue to use flow restrictors in UST system vent lines for reasons other than meeting the overfill prevention requirement, as long as the flow restrictors do not interfere with operation of the overfill prevention equipment being used.

Most commenters supported this change to the 1988 UST regulation. Several even suggested requiring retrofits of vent line flow restrictors with another type of overfill prevention equipment. Because EPA is concerned about imposing too many additional costs on owners and operators of existing UST systems, EPA is not requiring retrofits of existing vent line flow restriction devices, as long as they operate properly, alert delivery personnel, and prevent overfills. Some commenters suggested EPA continue to allow the use of vent line flow restrictors if they meet the criteria set forth in PEI's RP 100. EPA reviewed the PEI recommended practice and noted that the code sets criteria for the allowed use of vent line flow restrictors. However, more importantly, the code advises against using vent line flow restrictors for overfill prevention under any circumstance because they pressurize the UST, creating a hazardous condition when the device operates as designed. Consistent with PEI's RP 100 advisory, EPA is not allowing owners and operators to use vent line flow restrictors in new tanks or when overfill prevention equipment is replaced. Finally, several commenters suggested EPA continue to allow the use of vent line flow restrictors, as long as the flow restrictor can be shown to operate effectively. Because it is difficult to determine if flow restrictors

in vent lines will effectively restrict flow when the tank is close to being full, EPA is not allowing their use in new UST system installations or when overfill prevention equipment is replaced. However, the final UST regulation allows continued use of vent line flow restrictors installed before the effective date of the final UST regulation, as long as they operate properly, alert delivery personnel, and prevent overfills.

##### 2. Internal Linings that Fail the Periodic Lining Inspection and Cannot Be Repaired

About 3 percent of tanks rely on internal lining as the sole method of corrosion protection to meet the 1988 UST regulation.<sup>104</sup> Tanks that were internally lined to meet the 1988 UST regulation corrosion protection requirement at § 280.21 are typically older, bare steel tanks installed before 1986. The 1988 UST regulation preamble says that internal lining, when used as the sole method for corrosion protection, is not regarded as a permanent upgrade. However, it is adequate if the lining continues to meet original design specifications. If the internal lining no longer meets original design specifications and cannot be repaired according to industry codes, then the lined tank is subject to unprotected tank requirements and must be replaced after 1998. However, this language, which was in the 1988 UST regulation preamble, was inadvertently omitted from the 1988 UST regulation.

This final UST regulation modifies the 1988 UST regulation by requiring owners and operators to permanently close an UST that uses internal lining as the sole method of corrosion protection for the tank when the lining inspection determines the internal lining is no longer performing according to original design specifications and the internal lining cannot be repaired according to a code of practice developed by a nationally recognized association or independent testing laboratory. EPA understands that codes of practice for internal lining inspections in use as of publication of this final UST regulation contain pass or fail criteria for the internal lining and criteria for allowing repairs to an internal lining that fails the internal lining inspection.

<sup>104</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA-HQ-UST-2011-0301.

Owners and operators using internal lining as the sole method of corrosion protection for the tank may continue using that method as long as the internal lining is periodically inspected according to § 280.21(b)(1)(ii) and the internal lining passes the inspection or is repaired so it meets original design specifications according to a code of practice developed by a nationally recognized association or independent testing laboratory.

Consistent with current EPA policy,<sup>105</sup> tanks using the combination of cathodic protection and internal lining for corrosion protection are not required to be closed if the internal lining fails and cannot be repaired, as long as the cathodic protection is operated and maintained according to § 280.31 and the tank was assessed and found to be structurally sound and free of corrosion holes when the cathodic protection was added to the tank. In addition, owners and operators may use internal linings for purposes other than meeting EPA's corrosion protection upgrade requirement (for example, internal linings used for compatibility or secondary containment).

Most commenters supported this change to the 1988 UST regulation. Some even suggested more restrictive requirements: either phasing out internal lining as a corrosion protection upgrade or permanently closing an UST if the lining inspection failed. EPA is not requiring these more restrictive approaches because we think internal lining repairs can be appropriate and protect the environment when conducted according to a code of practice developed by a nationally recognized association or independent testing laboratory. In addition, requiring permanent closure under these more restrictive circumstances would place additional financial burdens on UST owners and operators. Several commenters offered adding cathodic protection and relining the tank as alternatives to permanent closure. EPA is not including these options in this final UST regulation because internally lined tanks that fail the lining inspection and cannot be repaired according to a code of practice are generally older and are nearing or past the end of their useful lives.

### 3. Notification

This final UST regulation adds a one-time notification of existence for UST systems with field-constructed tanks and UST systems identified as airport

hydrant fuel distribution systems. In addition, it adds a new notification requirement for ownership changes; provides a new form for making notification of ownership changes; and makes minor changes to the notification language and notification form.

EPA agrees with commenters who opposed requiring one-time notification of existence for emergency power generator UST systems as was proposed. Commenters explained, and EPA agrees, that since the 1988 UST regulation deferred these systems only from the release detection requirements in subpart D, owners should have notified the appropriate implementing agency within 30 days of bringing an UST system into use in accordance with the notification requirements in subpart B. Therefore, in this final UST regulation, the requirement to submit a one-time notification of existence applies only to owners of UST systems with field-constructed tanks and airport hydrant fuel distribution systems. (This one-time notification of existence does not apply to wastewater treatment tank systems, UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954, and UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50 previously deferred in the 1988 UST regulation and partially excluded in this final UST regulation.)

Furthermore, EPA agrees with commenters' requests to extend the time frame of 30 days in the 2011 proposed UST regulation for owners of UST systems with field-constructed tanks and airport hydrant fuel distribution systems to submit their one-time notification of existence. To provide owners more time for identifying and gathering information about these previously deferred systems, EPA is allowing owners of existing UST systems with field-constructed tanks and airport hydrant fuel distribution systems to submit a one-time notification of existence within 3 years of the effective date of this final UST regulation. EPA is requiring owners of UST systems with field-constructed tanks and airport hydrant fuel distribution systems brought into use after the effective date of the final UST regulation to submit notification forms; this notification requirement has been in place since 1986 for all UST owners bringing new USTs into use. See subpart K for other requirements related to UST systems with field-constructed tanks and airport hydrant fuel distribution systems.

Several commenters requested EPA allow 60 days instead of 30 days to submit a notification of ownership change, noting that the 30-day requirement is too stringent. One commenter stated that the time frame should be relaxed to account for large organizations where paperwork could involve a significant amount of time to process. Another stated that 30 days would be too short and unduly burdensome on small businesses. While EPA fully considered these comments, EPA thinks it is important for the ownership change notification requirement to be consistent with the new tank notification requirement (within 30 days of bringing an UST into use) in place since 1988. In addition, the ownership change notification form is shorter and takes less time to complete than the new tank notification form. As a result, this final UST regulation requires owners to submit a notification of ownership change within 30 days of assuming ownership of regulated UST systems.

In this final UST regulation, EPA provides a new notification form titled *Notification of Ownership Change for Underground Storage Tanks* under appendix II. This form supplants the *List of Agencies Designated to Receive Notifications* in appendix II of the 1988 UST regulation. The list, published in 1988, contained agency names, addresses, and phone numbers, many of which are no longer accurate. EPA considered updating the list, but given the frequency with which contact information changes, decided it is pointless to publish information in the final UST regulation since it will quickly become obsolete. Rather, owners can obtain current agency contact information on EPA's Web site at [www.epa.gov/oust](http://www.epa.gov/oust).

Two commenters indicated it was unclear who the implementing agency is and whether owners and operators need to notify both the state and EPA. In this final UST regulation, EPA is clarifying that owners must submit notification forms to the appropriate implementing agency. The term implementing agency is defined in the UST regulation and owners can obtain current contact and other information regarding their implementing agency on EPA's Web site at [www.epa.gov/oust](http://www.epa.gov/oust). In practice, EPA expects most owners will submit notification forms only to their respective state as their implementing agency, except in instances where the implementing agency is EPA. For example, EPA is the implementing agency for USTs located in Indian country; thus, owners with USTs in Indian country will submit their

<sup>105</sup> EPA UST Technical Compendium Question And Answer # 14: [www.epa.gov/oust/compend/nus.htm](http://www.epa.gov/oust/compend/nus.htm).

notification forms to EPA. Owners should also be aware that individual states may have state versions of notification forms which owners should use instead when submitting to the implementing agency. EPA is revising the regulatory language in § 280.22(a) and (b) and including language in subpart K to reflect that state forms may be used if the state requires owners to use notification forms that differ from those in appendices I and II.

Lastly, EPA is amending the notification form in appendix I and the ownership change form in appendix II to incorporate comments regarding specific items on these forms. For example, two commenters noted that owners of previously deferred UST systems would be unable to complete the Certification of Installation section of the *Notification for Underground Storage Tanks* form because they were not subject to this requirement when the UST system was brought into use. In addition, records of installation for these previously deferred UST systems are likely to be nonexistent given the passage of time since installation. EPA agrees with these commenters and is revising the notification form to indicate that only owners of UST systems with field-constructed tanks and airport hydrant fuel distribution systems brought into use after the effective date of this final UST regulation need to complete this section.

#### 4. Compatibility

##### Regulated Substance and Motor Fuel Definitions

This final UST regulation revises the regulated substance definition to clarify that UST systems containing petroleum derived from non-crude oil products are regulated. The preamble to the supplement of the proposed 1988 UST regulation indicates that petroleum products can be derived from other materials, such as biomass, plant material, organic waste, coal, and shale oil.<sup>106</sup> Petroleum is comprised of a complex blend of hydrocarbons regardless of its source material.

Many people applied the definition of regulated substance in the 1988 UST regulation to petroleum UST systems only if the petroleum was derived from crude oil. This final UST regulation clarifies that petroleum derived from non-crude oil based products, such as green gasoline, is a regulated substance under 40 CFR part 280. This clarification is consistent with the preamble to the 1988 UST regulation,

which indicates petroleum is not limited to being derived from crude oil.

This final UST regulation also modifies the definition of motor fuel to better accommodate new motor fuels that may be marketed and stored in the future. The definition in the 1988 UST regulation listed motor fuel products. This led to confusion as to whether new fuels, such as petroleum blended with ethanol or biodiesel, are motor fuels. This final UST regulation clarifies the definition of motor fuel and explains that it is any fuel typically used to operate a motor engine. In addition, EPA received comments to change the motor fuel definition from petroleum and petroleum-based substances to a complex blend of hydrocarbons. EPA agrees that using the phrase complex blend of hydrocarbons eliminates ambiguity; it provides a clearer definition of motor fuel by including complex blends of hydrocarbons that may not be petroleum or petroleum-based. EPA is making this change in this final UST regulation.

##### Compatibility

EPA understands that the chemical and physical properties of ethanol and biodiesel can be more degrading to certain UST system materials than petroleum alone. As the use of ethanol- and biodiesel-blended fuels increases, EPA is concerned that not all UST system equipment or components are compatible with these fuel blends. For purposes of compatibility, EPA uses the term equipment to mean a group of components assembled together by the manufacturer. Compatibility can be determined for all components of a piece of equipment. Compatibility determinations for equipment are typically useful when an UST system is newly installed or when a complete piece of equipment is replaced. Examples of equipment include the piping system, STP assembly, and automatic shutoff device assembly. A component is considered an individual piece of an UST system and is typically a single piece of the equipment. Component compatibility is determined on a piece by piece basis. A component compatibility determination is typically needed when performing repairs on an UST system where only parts of a piece of equipment are replaced. Examples of components include gaskets, seals, and other individual pieces that form a piece of equipment.

Gasoline containing 10 percent or less ethanol (E10) has been used in parts of the United States for many years. UST equipment and component manufacturers accommodated the E10 market by producing compatible

equipment and components. According to the Renewable Fuels Association, ethanol is blended into over 90 percent of all gasoline sold in the United States,<sup>107</sup> predominantly as E10. Recently, the United States has been moving toward use of higher blends of ethanol, due in part to federal and state laws encouraging increased use of biofuels. While most UST system equipment and components are compatible with E10, fuel blends containing greater than 10 percent ethanol do not have a long history of storage and may not be compatible with certain materials in existing UST systems. According to a 2011 report published by the U.S. Department of Energy's Oak Ridge National Laboratory,<sup>108</sup> some elastomeric materials are particularly affected by intermediate ethanol blends and certain sealants may not be suitable for any ethanol-blended fuels. A 2007 report from Underwriters Laboratories (UL)<sup>109</sup> evaluated the effect of 85 percent ethanol and 25 percent ethanol blends on dispenser components. Results indicated some materials used in the manufacture of seals degraded more when exposed to 25 percent ethanol test fluid than when exposed to 85 percent ethanol test fluid. Other literature suggests ethanol fuel blends can be more aggressive toward certain materials than independent fuel constituents, with maximum polymer swelling observed at approximately 15 percent ethanol by volume.<sup>110</sup> Based on this information, this final UST regulation clarifies the compatibility requirements for owners and operators storing regulated substances containing greater than 10 percent ethanol.

This final UST regulation also clarifies the compatibility requirements for owners and operators storing regulated substances containing greater than 20 percent biodiesel. Although the total use of biodiesel is significantly less than that of ethanol, biodiesel has

<sup>107</sup> Renewable Fuels Association, *Building Bridges to a More Sustainable Future: 2011 Ethanol Industry Outlook*. <http://www.ethanolrfa.org/page/-/2011%20RFA%20Ethanol%20Industry%20Outlook.pdf?nocdn=1>.

<sup>108</sup> Oak Ridge National Laboratory, *Intermediate Ethanol Blends Infrastructure Materials Compatibility Study: Elastomers, Metals, and Sealants* (March 2011).

<sup>109</sup> Underwriters Laboratories, Inc., *Underwriters Laboratories Research Program on Material Compatibility and Test Protocols for E85 Dispensing Equipment* (December 2007). Available in the UST Docket under Docket ID No. EPA-HQ-UST-2010-0651.

<sup>110</sup> Westbrook, P.A., *Compatibility and Permeability of Oxygenated Fuels to Materials in Underground Storage and Dispensing Equipment* (January 1999). Available in the UST Docket under Docket ID No. EPA-HQ-UST-2010-0651.

<sup>106</sup> "40 CFR parts 280 and 281 USTs; Supplement to Proposed Rule," 52 FR 48640 (December 23, 1987).

become increasingly available across the United States and may be incompatible with certain materials in UST systems. For example, pure biodiesel (B100) has known compatibility issues with certain materials. According to the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) *Biodiesel Handling and Use Guide, Fourth Edition*,<sup>111</sup> "B100 will degrade, soften, or seep through some hoses, gaskets, seals, elastomers, glues, and plastics with prolonged exposure. . . . Nitrile rubber compounds, polypropylene, polyvinyl, and Tygon® materials are particularly vulnerable to B100."

In contrast, the properties of very low blends of biodiesel, such as B5 or less, are so similar to those of petroleum diesel that the American Society for Testing and Materials (ASTM) International considers conventional diesel that contains up to 5 percent biodiesel to meet its *Standard Specification for Diesel Fuel Oils*.<sup>112</sup> For biodiesel blends between 5 and 100 percent, there is very little compatibility information; however, NREL's handling and use guide concludes that biodiesel blends of B20 or less have less of an effect on materials and very low blends of biodiesel, such as B5 and B2, ". . . have no noticeable effect on materials compatibility."<sup>113</sup> In addition, fleet service sites have stored B20 in UST systems for years, and EPA is not aware of compatibility-related releases associated with those UST systems storing B20. Therefore, this final UST regulation requires tank owners and operators who store greater than 20 percent biodiesel in their UST systems demonstrate compatibility of UST equipment or components by one of the options listed in § 280.32.

This final UST regulation retains the requirement for owners and operators to use UST systems made of or lined with materials that are compatible with the substance stored in the UST system. It does not change the compatibility requirement in the 1988 UST regulation, but does add several options for owners and operators to demonstrate that their UST systems are compatible with regulated substances containing greater than 10 percent ethanol, greater than 20

percent biodiesel, or any other regulated substances identified by the implementing agency. Owners and operators of these UST systems must meet one of the following options:

- Use equipment or components that are certified or listed by a nationally recognized, independent testing laboratory for use with the fuel stored
- Use equipment or components approved by the manufacturer to be compatible with the fuel stored

In addition, owners and operators may use another option determined by the implementing agency to be no less protective of human health and the environment than the methods listed above.

These options provide owners and operators flexibility in demonstrating compatibility while still protecting human health and the environment. In the past, owners and operators typically demonstrated compatibility by using equipment or components certified or listed by a nationally recognized, independent testing laboratory, such as UL. Many pieces of UST equipment and components in the ground today were manufactured before regulated substances containing ethanol or biodiesel existed and are not approved by nationally recognized, independent testing laboratories for use with these fuel blends. Currently, certain tanks and piping have been tested and are listed by UL for use with higher-level ethanol blends. However, many other pieces of equipment and components of UST systems, such as leak detection devices, sealants, and containment sumps, may not be listed by UL or another nationally recognized, independent testing laboratory for use with these blends.

In addition, EPA is not aware of any nationally recognized, independent testing laboratory that has performed compatibility testing on UST system equipment or components with biodiesel-blended fuels. Absent certification or listing from a nationally recognized, independent testing laboratory or other verification that the equipment or component may be used with anything other than conventional fuels, the suitability of an UST system for use with biodiesel blends is questionable. As a result, EPA is providing several options for demonstrating compatibility to reduce the risk of releases due to material incompatibility. Owners and operators storing regulated substances blended with greater than 10 percent ethanol or greater than 20 percent biodiesel must meet the compatibility requirements before storing those regulated substances.

For equipment and components tested and approved by a nationally recognized, independent testing laboratory, owners and operators may demonstrate compatibility solely by keeping records of the equipment and components. In this instance, the testing laboratory's listing, labeling, or approval demonstrates the equipment or component's suitability to be used with the regulated substance stored. This means owners and operators will be able to demonstrate compatibility by retaining equipment or component records.

Owners and operators may also demonstrate compatibility by obtaining manufacturer's approval of the equipment or component. The manufacturer's approval must be in writing and include an affirmative statement that the equipment or component is compatible with the fuel blend stored. The manufacturer's approval must also specify the range of fuel blends for which the equipment or component is compatible. The manufacturer's approval must be issued from the equipment or component manufacturer, not another entity, such as the installer or distributor. A manufacturer's approval enables owners and operators to demonstrate compatibility for equipment or components not approved for use by a nationally recognized, independent testing laboratory. It also provides implementing agencies with verification that the equipment or component is compatible with the fuel stored.

Implementing agencies may approve other options for complying with the compatibility requirement for regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel if they are no less protective of human health and the environment than manufacturer's approval or a listing, labeling, or approval by a nationally recognized, independent testing laboratory. This provides implementing agencies with flexibility to consider other approaches they determine to be appropriate. For example, in lieu of an affirmative compatibility determination, implementing agencies may allow secondarily contained UST systems using interstitial monitoring to store regulated substances containing greater than 10 percent ethanol or 20 percent biodiesel. The rationale is that a leak from the primary containment will be contained by secondary containment and detected by interstitial monitoring equipment before regulated substances reach the environment.

Although these options for demonstrating compatibility apply to

<sup>111</sup> National Renewable Energy Laboratory, *Biodiesel Handling and Use Guide, Fourth Edition*, (2009). Available in the UST Docket under Docket ID No. EPA-HQ-UST-2010-0651.

<sup>112</sup> ASTM Standard D975, 2010c, *Standard Specification for Diesel Fuel Oils*, ASTM International, West Conshohocken, PA, 2010, DOI: 10.1520/D0975-10C, [www.astm.org](http://www.astm.org).

<sup>113</sup> National Renewable Energy Laboratory, *Biodiesel Handling and Use Guide, Fourth Edition*, (2009). Available in the UST Docket under Docket ID No. EPA-HQ-UST-2010-0651.

UST systems storing regulated substances containing greater than 10 percent ethanol and greater than 20 percent biodiesel, this final UST regulation extends the compatibility demonstration requirement to other regulated substances identified by implementing agencies. This provides implementing agencies with the flexibility to require a demonstration of compatibility if there are concerns about other existing regulated substances and when new regulated substances, such as biobutanol, enter the fuel market.

EPA received comments about the difficulty in determining whether some UST system equipment or components currently installed in the ground are compatible with ethanol and biodiesel blended fuels. In fact, EPA thinks there are many cases where some equipment or components of UST systems in the ground as of 2014 are not compatible with newer fuels. Unless owners and operators specifically requested all of the UST system be compatible with higher ethanol or biodiesel blends, installers probably installed lower cost options for certain UST system equipment, such as a STP assembly, which may not be compatible with some newer fuels. Non-compatible equipment or components, such as equipment in containment sumps, are usually easier to upgrade or replace than the tank or piping because they are typically located in areas not requiring excavation. In addition, EPA provides various options for meeting the compatibility requirement. To protect the environment from releases of ethanol blends greater than 10 percent, biodiesel blends greater than 20 percent, or any other regulated substance identified by the implementing agency, owners and operators must do one of the following:

- Demonstrate the UST system is compatible through certification or listing by a nationally recognized, independent testing laboratory or manufacturer approval
- Replace equipment or components not compatible or for which compatibility cannot be determined
- Use another option determined by an implementing agency to be no less protective of human health and the environment
- Not store these regulated substances in the UST system

These options provide owners and operators with adequate flexibility when demonstrating compatibility and determining whether certain regulated substances may be stored in the UST system.

Some commenters suggested adding other options owners and operators could use for determining compatibility. One suggested addition was certification by a professional engineer (P.E.), who would perform an on-site UST system analysis to determine compatibility. In order to perform this analysis, a P.E. would need to know the manufacturer and model of all UST system equipment or components. Because this information cannot be entirely obtained through visual observation, a P.E. would need to obtain records of the equipment to make an assessment and then search for relevant equipment listings or manufacturer certifications. This means a P.E. certification is equivalent to the options in this final UST regulation. EPA does not object to a P.E. performing a records review; however, we think it is impractical for a P.E. to perform a visual assessment of an UST system and make a compatibility determination in the absence of equipment records and certifications. Therefore, EPA is not explicitly allowing a P.E. to make a compatibility determination in the absence of UST system information and compatibility certifications.

Some commenters suggested EPA use a tiered approach to demonstrate compatibility for UST systems storing regulated substances containing greater than 10 percent ethanol and greater than 20 percent biodiesel, and choose one method of determining compatibility. EPA interprets tiered approach to mean requiring the more stringent option first, which is listing by a nationally recognized, independent testing laboratory. If the more stringent option is not available, the second tier would allow manufacturer's approval. This final UST regulation does not include a tiered approach because EPA thinks using this method for demonstrating compatibility makes the final UST regulation too complicated for implementing agencies as well as owners and operators. Even if the UST system equipment or components have a listing from a nationally recognized, independent testing laboratory, we do not always know whether compatibility testing was part of the listing. EPA thinks manufacturers will only issue written claims of compatibility if they have sufficient information to support such claims.

The 2011 proposed UST regulation required owners and operators retain these records:

- For all new and replaced equipment or components—so it is easier to demonstrate whether or not the equipment or component is

compatible with the regulated substance stored

- For UST systems storing greater than 10 percent ethanol, greater than 20 percent biodiesel, or other regulated substance identified by the implementing agency—to demonstrate the UST system is compatible with these regulated substances or compliance with alternatives allowed by the implementing agency

However, after careful consideration of comments, this final UST regulation does not require owners and operators maintain records for all new and replaced equipment. EPA decided it is too onerous for owners and operators to maintain this information, which may not transfer when facilities change ownership.

To make it easier for UST owners and operators to comply with the compatibility requirement, this final UST regulation requires that owners and operators notify the implementing agency at least 30 days before switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency. This notification prior to switching fuels gives the implementing agency an opportunity to inquire about the compatibility of the UST system before owners and operators begin storing the new regulated substance. This notification requirement already exists in some states. For example, Colorado, North Carolina, and South Carolina require UST owners submit a completed compatibility checklist prior to storing some newer fuel blends. To notify, owners and operators may contact implementing agencies via EPA's Web site at [www.epa.gov/oust/](http://www.epa.gov/oust/).

This final UST regulation requires owners and operators maintain records that demonstrate compliance with § 280.32(b) for as long as the UST system stores greater than 10 percent ethanol, greater than 20 percent biodiesel, or other regulated substances identified by the implementing agency. Owners and operators must retain records for these regulated substances in order to meet this compatibility requirement.

The 2011 proposed UST regulation preamble included an extensive list of UST system equipment and components that must be compatible but that list was not in the 2011 proposed UST regulation. Based on commenter input, this final UST regulation includes a list of UST system equipment and components that owners and operators

must demonstrate to be compatible when using the manufacturer's approval and certification or listing options. The UST system equipment or components that owners and operators must demonstrate to be compatible are those related to the tank, piping, containment sumps, pumping equipment, release detection equipment, spill prevention equipment, and overfill prevention equipment. These items are a subset of an UST system, as defined by § 280.12, which, if incompatible, could lead to a release.

This changes protect human health and the environment from potential releases from incompatible UST systems. These changes are not overly burdensome, nor do they require costly retrofits. They give owners and operators flexibility, yet provide EPA with confidence that UST systems are compatible with new fuel blends when owners and operators use one or more of the options to determine compatibility. This final UST regulation provides owners and operators with certainty about which options are allowed for demonstrating UST system compatibility with the substances stored.

Finally, EPA is removing from the compatibility section of the 1988 UST regulation API Recommended Practice 1627, which is a code of practice related to methanol-blended fuels. EPA included this code of practice in the 1988 UST regulation to help owners and operators demonstrate compliance with the compatibility requirement for methanol-blended fuels. However, EPA's subsequent review of this code revealed no substantial information about determining compatibility of UST systems with methanol-blended fuels. In August 2010, API published an updated version of API Recommended Practice 1626, which is a code of practice for storing and handling of ethanol-blended fuels. In the 2011 proposed UST regulation, EPA removed this code of practice because the proposed UST regulation provided specific requirements about how owners and operators may demonstrate compatibility for their UST systems. However, because commenters pointed out the code of practice includes requirements for demonstrating compatibility of UST systems with ethanol-blended fuels, EPA is including it as a code of practice that may be useful in complying with the compatibility section in this final UST regulation.

## 5. Improving Repairs

### Changes to the Definition of Repair

This final UST regulation adds these UST system components to the definition of repair: piping; spill prevention equipment; overfill prevention equipment; corrosion protection equipment; and release detection equipment. The 1988 UST regulation definition of repair used the generic term UST system component and provided no detail about what an UST system component is. By adding these UST system components, EPA is making it clear that these specific components are subject to the repairs allowed section of the final UST regulation. This means owners and operators performing repairs on these UST system components must follow the repairs allowed section (§ 280.33).

Owners and operators commonly fix UST components that have not caused a release of regulated substance from the UST system. However, the repair definition in the 1988 UST regulation did not consider these types of fixes as repairs since they were not associated with releases. This final UST regulation removes the link that a repair is only associated with a release, requiring owners and operators meet the repairs allowed section (§ 280.33) when fixing UST system components that have failed to function properly, even if they have not caused a release of product from the UST system. This change means owners and operators must perform repairs in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and test or inspect the repaired equipment. This change ensures repair activities separate from a release are conducted properly. For example, under the 1988 UST regulation, fixing a cathodic protection system was not considered a repair. In this final UST regulation, this activity is considered a repair that must meet the repair requirements in § 280.33.

EPA proposed adding a suspected release as part of the definition of repair, so repairs associated with suspected releases are covered under the repair definition. However, based on comments received, EPA is not including suspected release as part of the definition of repair in this final UST regulation because that circumstance is already covered under the "failed to function properly" language in the repair definition. EPA disagrees with commenters suggesting EPA remove the "failed to function properly" language because EPA thinks repairs need to occur both when a release occurs and

when UST system equipment fails to function properly.

Finally, based on comments received, EPA is adding clarifying language to the repair definition to ensure UST system component repairs restore components to proper operating condition.

### Tests or Inspections After Repairs

This final UST regulation adds new testing or inspection requirements for spill, overfill, and secondary containment equipment following a repair and allows owners and operators up to 30 days following the repair to test or inspect the repaired UST component. EPA acknowledges that some secondary containment can be tested through normal release detection if vacuum, pressure, or liquid-filled methods of interstitial monitoring are used as the method of release detection. In these cases, the secondary containment test occurs automatically, making it unnecessary to perform additional testing.

EPA agrees with commenters about using the term inspecting rather than testing as it relates to the operability of overfill prevention equipment. Performing inspections will avoid potentially overfilling the tank while ensuring the overfill prevention equipment operates properly. EPA is revising the overfill prevention equipment test to be an overfill prevention equipment inspection.

EPA agrees with commenters who indicated that testing or inspection following repair should only apply to the component or components repaired and not to the entire UST system. This final UST regulation requires testing or inspection, as appropriate, following a repair only for those UST system components repaired and not to all components at the UST site. In addition, EPA is requiring owners conduct a test of the secondary containment area (including containment sumps) only if the secondary containment area is repaired and that area is used for interstitial monitoring. Note that all secondary containment areas must use interstitial monitoring for tanks and piping installed 180 days after the effective date of this final UST regulation (see section A-2, Secondary Containment for additional information). Repairs to the primary containment areas of a tank or piping may be tested using other options for tanks and piping listed in the repairs section.

Several commenters expressed concern that replacing UST system components that have not yet failed to function properly would trigger the repair requirements. If owners and



operators choose to replace UST system components, those components must meet the installation requirements in § 280.20(d). Therefore, replaced UST system components do not have to meet the repair requirements in § 280.33.

EPA solicited comments about whether to consider requiring tests or inspections of spill, overflow, and secondary containment areas before returning the UST system to service, rather than within 30 days of the repair. Many commenters were supportive of requiring testing or inspection before bringing the UST system back into service. However, this final UST regulation allows owners and operators up to 30 days following the repair to conduct testing or inspections. EPA thinks owners and operators need to test or inspect the repaired component as soon as possible following the repair. However, EPA understands there are circumstances where testing or inspection before returning the UST system to service may be impractical (for example, weather conditions, remote locations, or the need to schedule a test). In these examples, the UST system would remain out of service until the test or inspection is completed, resulting in unnecessary UST system down time for owners and operators. Thirty days allows some flexibility for completing the test or inspection, while allowing the UST system to return to service.

#### 6. Vapor Monitoring and Groundwater Monitoring

This final UST regulation retains vapor monitoring and groundwater monitoring as methods of release detection for tanks and piping installed before the effective date of this final regulation, as long as owners and operators demonstrate proper installation and performance through a site assessment. In addition, this final UST regulation revises the recordkeeping requirement in § 280.45, which means owners and operators must maintain site assessments according to § 280.43(e)(6) and (f)(7) for as long as these release detection methods are used.

In the 2011 proposed UST regulation, EPA phased out vapor monitoring and groundwater monitoring over a five year time frame. However, EPA received significant comments in support of retaining these release detection methods. Many commenters presented circumstances where EPA should allow owners and operators to use vapor monitoring and groundwater monitoring such as: Until the system is replaced and the secondary containment requirement is triggered; or when the

UST implementing agency already has or will establish additional criteria for use. In addition, commenters suggested EPA continue allowing certain UST systems to use vapor monitoring and groundwater monitoring, specifying emergency generator tanks, certain high-throughput UST systems, or specific low-throughput systems. EPA also received numerous requests to expand our proposed release detection options for airport hydrant fuel systems and field-constructed tanks to allow the use of vapor monitoring or groundwater monitoring. Under the 2011 proposed UST regulation, these options are not acceptable release detection options for owners and operators of airport hydrant systems and field-constructed tanks.

EPA agrees with commenters that owners and operators of emergency generator tanks, certain high-throughput UST systems, and specific low-throughput systems could benefit from continued use of vapor monitoring and groundwater monitoring until owners and operators replace their UST systems to meet the secondary containment requirement necessitating interstitial monitoring. EPA thinks that requiring owners and operators to maintain the site assessment will increase environmental protection appreciably beyond the 1988 UST requirements. Implementing agencies have noted that site assessments often do not exist for vapor or groundwater monitoring. Thus, by requiring site assessment records, we will ensure vapor and groundwater monitoring wells are properly located and function as effective release detection. EPA also thinks that allowing these release detection options to be customized and used for airport hydrant systems and field-constructed tanks will make it easier for owners and operators to comply with the release detection requirement.

Therefore, this final UST regulation continues to allow vapor and groundwater monitoring as long as owners and operators maintain a site assessment that demonstrates the release detection method meets the requirements in this final UST regulation. Owners and operators of airport hydrant systems and field-constructed tanks will have to meet the requirements for vapor monitoring and groundwater monitoring described in subpart K (see section C–2 for additional information).

The 1988 UST regulation defined criteria for the use of both release detection methods as explicitly as possible, given the large variation of site-specific conditions at UST sites across the country. EPA supports UST implementing agencies' efforts to better

define site assessment criteria specific to their local geology in addition to what is required in the UST regulation. EPA also acknowledges and supports several UST implementing agencies' efforts in conducting construction certification and recertification inspections. However, EPA has not analyzed the economic burden construction certification and recertification inspections would place on UST implementing agencies and potentially UST system owners and operators. Therefore, this final UST regulation does not require installation inspections, certification, or recertification inspections of monitoring wells. EPA expects UST implementing agencies will continue reviewing and accepting site assessments according to their program policies.

In the event of a confirmed release at an UST site, vapor monitoring and groundwater monitoring are no longer acceptable options for release detection unless a new site assessment for the release detection method is conducted. If a release is confirmed, an owner and operator will have to remediate the site according to 40 CFR part 280, subpart F. Following site remediation, and as long as replacement of the UST system does not trigger the secondary containment requirement, an owner and operator must obtain a new site assessment to verify appropriate use of these methods, if the owner and operator chooses to continue using vapor monitoring or groundwater monitoring as the primary release detection method. Otherwise, owners and operators must use another method of release detection according to subpart D or subpart K.

At the time of the 2011 proposed UST regulation, EPA estimated approximately 5 percent of all active UST systems were using vapor monitoring or groundwater monitoring to comply with release monitoring requirements.<sup>114</sup> Commenters confirmed that 5 percent of vapor monitoring and groundwater monitoring was accurate. EPA also confirmed that although the methods are used very infrequently in the majority of jurisdictions, there is considerably high use in certain states. Arkansas, Louisiana, and Mississippi have a significant number of owners and operators using vapor monitoring, groundwater monitoring, or a combination of the two methods.

<sup>114</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA–HQ–UST–2011–0301.

Estimated use of both methods in these states is 29 percent, 12 percent, and 65 percent, respectively. Confirmation of high use in one particular geographic area of the country influenced EPA's decision to continue allowing use of these methods.

EPA agrees with comments about major benefits for UST system owners and operators to use backup release detection, whether it is vapor monitoring, groundwater monitoring, or another method. However, neither the 1988 UST regulation nor this final UST regulation requires a secondary 30 day release detection method.

EPA discussed several issues in the 2011 proposed UST regulation that prompted our proposal to no longer allow vapor monitoring and groundwater monitoring as primary methods of release detection. However, the requirement in this final UST regulation for owners and operators to maintain the record of a site assessment for as long as the method is used will address most of these issues.

If the site assessment is available when inspecting USTs, UST implementing agencies can confirm proper installation and use of monitoring wells. For example, if inspectors find what they believe to be insufficient numbers of wells or wells improperly located to sufficiently monitor all portions of the tank or piping that routinely contain product, inspectors will be able to reference the site assessment to determine adequacy of the wells.

The site assessment will also help UST implementing agencies determine whether certain conditions, which allow users to switch between vapor monitoring and groundwater monitoring due to seasonal variations, have been met. Monitoring wells must be properly constructed and installed to meet all criteria in § 280.43(e) and (f). Wells used for vapor monitoring must allow vapors to collect; wells used for groundwater monitoring must be screened to prevent clogging and intercept the water table at both high and low groundwater conditions while being sealed from the ground to the top of the filter pack. Information regarding acceptability of the same wells used for both methods of release detection must be documented in the site assessment.

In the 2011 proposed UST regulation, EPA discussed issues that were specific to vapor monitoring. These issues will be addressed when owners and operators maintain the site assessment for as long as the method is used. The site assessment will contain information on site conditions, such as whether porosity of the surrounding soil is

sufficient. The site assessment will confirm that vapors to be monitored will be unaffected by groundwater, rainfall, or soil moisture. Perhaps the most crucial information in the site assessment is the background contamination level at the site. This will allow owners, operators, and implementing agencies to determine whether that level interferes with monitoring methods. It also marks the threshold for determining a release has occurred when monitoring for petroleum hydrocarbons.

Maintaining the site assessment also addresses specific groundwater monitoring issues EPA discussed. Groundwater at times can be more than 20 feet from the ground surface, due to seasonal water table variations. This can result in the depth to groundwater requirement not being met. Unless an analysis is performed and valid documentation regarding use of the wells for vapor monitoring during low water table conditions is included in the site assessment, the wells will be restricted for groundwater monitoring use only.

In cases where there is no site assessment or an assessment does not sufficiently ensure requirements in § 280.43(e) or (f) are met, UST system owners and operators must reassess the site and maintain documentation required in § 280.43(e)(6) and (f)(7) in order to continue using groundwater or vapor monitoring as a method of release detection. At a minimum, a professional engineer or professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or other relevant technical discipline acceptable to the UST implementing agency must sign the new site assessment.

EPA understands that in Arkansas, Louisiana, and Mississippi, where the methods are commonly used and account for the majority of use in the country, most UST system owners and operators or the UST implementing agency have sufficient documentation of the site assessment. This means most owners and operators in those states will not need to conduct a new site assessment to comply with this final UST regulation. Owners and operators in other areas of the country may need to conduct a site assessment in order to continue using vapor monitoring or groundwater monitoring.

This final UST regulation also addresses another major aspect associated with vapor monitoring and groundwater monitoring methods. Equipment that is used as part of these release detection methods requires proper operation and maintenance in

order to provide optimal monitoring results. Operation and maintenance requirements for electronic and non-electronic equipment are addressed in the release detection equipment testing requirement discussed in section B-5 and the walkthrough inspection requirement in section B-1, respectively.

#### 7. Interstitial Monitoring Results, Including Interstitial Alarms, Under Subpart E

This final UST regulation clarifies UST owners' and operators' responsibilities regarding interstitial monitoring results, including alarms, under 40 CFR part 280, subpart E. Specifically, EPA is making these changes:

- § 280.50(b)—adding liquid in interstitial spaces of secondarily contained UST systems as an example of an unusual operating condition and adding to the list of criteria for not being required to report a suspected release that any liquid in the interstitial space not used as part of the interstitial monitoring method must be removed
- § 280.50(c)—clarifying that an alarm during release detection monitoring is subject to the reporting requirement and describing exceptions to the reporting requirement
- § 280.52(a)—adding owners and operators as appropriate must conduct secondary containment testing, and clarifying actions UST owners and operators must take if a test confirms a leak into the interstitial space or indicates a release to the environment

The 1988 UST regulation implicitly covered interstitial monitoring when reporting suspected releases because it was a method of release detection. This final UST regulation makes changes to explicitly cover interstitial monitoring and reinforce that a leak into an interstitial space of a secondarily contained UST system also indicates a potential threat to the environment; leaks must be investigated, addressed, and as necessary, reported.

This final UST regulation requires interstitial monitoring for all new or replaced tanks and piping (see section A-2, Secondary Containment). As new systems are installed, interstitial monitoring will become more widely used as a method of release detection. With this in mind, EPA wants UST owners and operators to clearly understand how interstitial monitoring results, including interstitial alarms, must be handled.

In the 1988 UST regulation, EPA indicated that product or water in the

interstice, and alarms signifying the presence of those conditions, are unusual operating conditions and must be investigated appropriately. However, EPA did not indicate how UST owners and operators were to address discrepancies with interstitial spaces. As a result, some UST owners and operators were uncertain about how best to respond to interstitial monitoring results and alarms associated with interstitial monitoring that indicate a release may have occurred. To alleviate uncertainty for owners and operators, EPA provides information below about interstitial monitoring and responses to alarms.

This final UST regulation revises § 280.50(b) by adding interstitial spaces of secondarily contained UST systems and clarifying the presence of liquid in this space as an unusual operating condition unless the liquid is used for interstitial monitoring or meets the requirements described in § 280.43(g)(2)(iv). Water in the interstitial space (presumably from a breach in the secondary wall) and product in the interstitial space (presumably from a breach in the primary wall) are the two typically encountered liquids discovered in the interstice. However, EPA is using the broader term liquid to cover water, product, or other substances in the liquid-phase in the interstitial space. Any liquid in this space not used for interstitial monitoring or not meeting the requirements described in § 280.43(g)(2)(iv) indicates there is an UST system problem that needs to be resolved. As a result, EPA is specifying this as an unusual operating condition and is requiring UST owners and operators investigate and address it.

Several commenters suggested changes to § 280.50(b) of the 2011 proposed UST regulation. Suggestions included: Deleting that water or product in the interstice is reportable and clarifying the requirement that the unexplained presence of water or product is an unusual operating condition. Based on comments, EPA in § 280.50(b) of this final UST regulation is using the term liquid, rather than water or product, to address any liquid in the interstitial space. To add clarity to this final UST regulation, EPA is also restructuring the section to provide subsections with separate examples of unusual operating conditions. This final UST regulation also allows owners and operators to not remove or report liquid under two conditions: Within secondary barriers described in § 280.43(g)(2)(iv), as long as interstitial monitoring is not rendered inoperative, or the liquid is

used as part of the interstitial monitoring method.

EPA is clarifying in § 280.50(c) that an alarm during release detection monitoring, which indicates a potential release or compromise of the interstitial space, is subject to the reporting requirement. UST owners and operators must appropriately address all release detection monitoring alarms. For example, some interstitial monitoring systems will trigger an alarm, which indicates a potential release or that the interstitial space has been compromised. In subpart E, EPA is adding interstitial monitoring to emphasize its importance because the secondary containment requirement for new and replaced systems in section A-2 will increase the use of interstitial monitoring. UST owners and operators are not required to report alarms from defective system equipment or components or alarms that are investigated and determined to be a non-release. Also, UST owners and operators do not have to report leaks, which are contained in the interstitial space; but owners and operators must investigate and repair problems. Except as provided in § 280.43(g)(2)(iv), any liquid in the interstitial space not used as part of the interstitial monitoring method, such as brine filled, must be removed.

Several commenters misunderstood EPA's discussion regarding reporting alarms. In the 2011 proposed UST regulation, EPA intended that owners and operators need to investigate all alarms, but only report confirmed releases and suspected releases that could not be ruled out by an investigation. Commenters suggested these changes to EPA's 2011 proposed UST regulation at § 280.50(c): Deleting language pertaining to alarms; changing language regarding the time allowed to repair, recalibrate, or replace defective system equipment; and including an exception for reporting alarms that have been confirmed to be false alarms. Based on comments, EPA in § 280.50(c) of this final UST regulation is expanding and describing exceptions to reporting monitoring results, including investigation of an alarm from a release detection method that indicates a release may have occurred.

EPA is adding secondary containment testing, as appropriate, to the release investigation and confirmation steps in § 280.52(a) of the final UST regulation. EPA thinks it is important to clarify actions UST owners and operators must take if a test confirms a leak into the interstitial space or indicates a release has occurred. If a leak into the interstice is confirmed, an UST owner and

operator must correct or address the problem. In addition to options listed in the 1988 UST regulation, this final UST regulation includes closure as an option when an owner and operator confirms a release. Nothing in this final UST regulation changes the requirement in subpart F for an UST owner and operator to take corrective action if a release occurred.

In the 2011 proposed UST regulation, EPA suggested that UST owners and operators follow integrity test requirements, now referred to as secondary containment testing, of the interstitial area. Many commenters noted that tank tightness testing or line tightness testing may be more appropriate tests to confirm a suspected release under certain circumstances, and UST system owners and operators should be allowed the choice of determining which test to use. EPA agrees and is revising § 280.52(a) to indicate use of secondary containment testing as appropriate.

EPA received several comments about the terms release and leak used throughout the 2011 proposed UST regulation and the 1988 UST regulation. Historically, EPA used these terms interchangeably. As a result of EPA's new secondary containment and interstitial monitoring requirement (see section A-2, Secondary Containment), there is now a subtle but important distinction between the terms. The term release is defined in the Solid Waste Disposal Act. EPA provides the same definition of release in the UST regulation at § 280.12. Release means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into groundwater, surface water or subsurface soils. A release always reaches the environment. The term leak in this final UST regulation is a more general term that includes both cases of when a regulated substance enters into a contained area (such as secondary containment) but has not yet reached the environment and when a regulated substance reaches the environment (a release). Therefore, the term release is a subset of the more general term leak. Note that leaks and releases have investigation and reporting requirements in subpart E.

As a result of distinguishing between a leak and a release, EPA is clarifying the definition of release detection. The 1988 UST regulation defined release detection as determining whether a release of a regulated substance occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary

containment around it. This final UST regulation revises the definition of release detection to clarify regulated substances entering into the interstitial space are leaks instead of releases. This final UST regulation defines release detection as determining whether a release of a regulated substance occurred from the UST system into the environment or a leak occurred into the interstitial space between the UST system and its secondary barrier or secondary containment around it. This change allows EPA to continue to use the term release detection as it applies to both leaks and releases.

#### E. General Updates

##### 1. Incorporate Newer Technologies

Since EPA promulgated the 1988 UST regulation, newer tank, piping, and release detection technologies have been developed and are being used. EPA is incorporating several of these newer technologies in this final UST regulation. In addition, because the 1988 UST regulation closure requirements unintentionally restrict use of a newer tank within a tank technology, EPA is revising closure requirements to provide additional flexibility for implementing agencies to allow field-constructed tank technologies that construct a tank within an existing closed tank. However, EPA is not specifically including field-constructed tank within a tank technologies in the new tank standards section in § 280.20 of the final UST regulation, because the tank construction technologies currently covered in this section include both factory constructed and field-constructed technologies. Note that § 280.20(d) requires new UST systems, including tank within a tank technologies, to be properly installed according to a code of practice developed by a nationally recognized association or independent testing laboratory and the manufacturer's instructions.

##### Clad and Jacketed Tanks

This final UST regulation adds steel tanks that are clad or jacketed with a non-corrodible material to the list of specific new tank design and construction options for UST systems. EPA estimates 10 percent of regulated tanks today are jacketed with a non-corrodible material and 18 percent are clad with a non-corrodible material.<sup>115</sup>

<sup>115</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These

The 1988 UST regulation allowed a steel-fiberglass-reinforced-plastic composite tank (also called a fiberglass clad tank), but did not specifically include other non-corrodible claddings. In addition to fiberglass, manufacturers in 2014 are using other non-corrodible materials claddings for steel tanks, which are listed by UL standard 1746, *External Corrosion Protection Systems for Steel Underground Storage Tanks*. These tank technologies are effective at preventing corrosion of the portion of the steel tank shell in contact with the ground. EPA considers a cladding to be a non-corrosive dielectric material, bonded to a steel tank with sufficient durability to prevent external corrosion during the tank's life.

Because they were not commonly used at the time, EPA did not include jacketed tanks in the 1988 UST regulation. These tanks are now: More commonly used; UL 1746 listed for external corrosion protection; and effective in preventing corrosion of the steel tank shell. EPA considers the tank jacket to be a non-corrosive dielectric material that: is constructed as secondary containment or jacketed around a steel tank; has sufficient durability to prevent external corrosion of the steel tank shell during a tank's life; and prevents a regulated substance released from the primary steel tank wall from reaching the environment.

##### Non-Corrodible Piping

The 1988 UST regulation allowed fiberglass-reinforced plastic piping, but did not specifically include other non-corrodible piping options such as flexible plastic piping. Both fiberglass and flexible plastic piping are listed under the UL 971 standard, *Nonmetallic Underground Piping for Flammable Liquids*. Non-corrodible piping not made of fiberglass-reinforced plastic (in particular, flexible plastic piping) was installed at UST sites beginning in the 1990s and has evolved over the past 20 years. Flexible plastic piping is made of various non-corrodible materials, such as polyethylene and polyurethane. EPA estimates at least 13 percent of regulated piping currently installed is made of non-corrodible materials that are not fiberglass-reinforced plastic.<sup>116</sup> This final UST regulation revises fiberglass-reinforced piping to be non-corrodible

supporting materials are located in the docket EPA-HQ-UST-2011-0301.

<sup>116</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA-HQ-UST-2011-0301.

piping and allows UST owners and operators to install other types of non-corrodible piping, such as flexible plastic, without requiring implementing agencies to make a determination on the suitability of those materials.

##### Release Detection Technologies

The 1988 UST regulation allowed UST owners and operators to use other methods that meet release detection performance criteria listed at § 280.43(h). Although continuous in-tank leak detection (CITLD) and SIR were allowed under § 280.43(h), EPA is including both by name and providing specific performance criteria in this final UST regulation for the reasons described below.

##### CITLD

The 1988 UST regulation allowed ATG systems as a recognized method of release detection. However, ATG systems were generally listed with performance requirements consistent with performing a static test. ATG systems rely on system down time and the absence of product delivery or dispensing activities to perform release detection. In static testing mode, an ATG system analyzes product level and determines whether a leak is present during that down time. UST owners and operators also use ATG systems as a means of continually monitoring tanks for potential releases. CITLD has evolved as a reliable means of providing release detection equivalent to other methods specified in § 280.41. Within this category of methods, this final UST regulation allows continuous in-tank methods where the system incrementally gathers measurements to determine a tank's leak status within the 30-day monitoring period.

One commenter asked EPA to further clarify the term CITLD. That commenter said EPA presented language in the 2011 proposed UST regulation that confused CITLD, continuous statistical leak detection (CSLD), and SIR because each is a statistically based release detection method. EPA agrees with the commenter and is clarifying use of the term CITLD, which encompasses all statistically based methods where the system incrementally gathers measurements on an uninterrupted or nearly uninterrupted basis to determine a tank's leak status. Currently, there are two major groups that fit into this category: CSLD (also referred to as continuous automatic tank gauging methods) and continual reconciliation. Both groups typically use sensors permanently installed in the tank to obtain inventory measurements. They are combined with a microprocessor in

the ATG system or other control console that processes the data. Continual reconciliation methods are further distinguished by their connection to dispensing meters that allow for automatic recording and use of dispensing data in analyzing tanks' leak status. SIR, which we describe below, is not a continually operating method that fits into the CITLD category.

This final UST regulation formally recognizes CITLD as a release detection method in § 280.43(d). Per § 280.41, a conclusive pass or fail result must be obtained within the 30-day monitoring period. All monitoring records must be maintained according to § 280.45. Another method of release detection is required in the event of an inconclusive result. For example, in the event of an inconclusive result, UST owners and operators may perform an in-tank static test using an ATG system or use another method of release detection.

#### SIR

This final UST regulation adds SIR as a release detection method and provides performance criteria for its use. SIR must:

- Report a quantitative result with a calculated leak rate;
- Be capable of detecting a leak rate of at least 0.2 gallon per hour or a release of 150 gallons within a 30-day period with a probability of detection of not less than 0.95 and a probability of false alarm of no greater than 0.05; and
- Use a threshold that does not exceed one-half the minimum detectable leak rate.

A quantitative result with a calculated leak rate is necessary to effectively perform release detection using SIR. Some SIR methods are qualitative based methods that simply provide a result of pass or fail without any additional information for UST owners and operators to gauge the validity of reported results. Based on information in the NWGLDE list,<sup>117</sup> approximately 85 percent of SIR methods listed are quantitative-based methods. Many state UST implementing agencies already only allow quantitative methods. This final UST regulation only allows quantitative SIR as an option for meeting the release detection requirement.

Consistent with the performance criteria described in the other methods option for release detection, this final UST regulation maintains the performance standards of a 0.2 gallon per hour release or a release of 150

gallons within a 30-day period with a probability of detection of 0.95 and a probability of false alarm of 0.05. The 2011 proposed UST regulation did not include the additional standard of 150 gallons within a 30-day period for SIR. EPA agrees with the commenter who noted the importance of the 150 gallons criteria if SIR methods are used for monitoring piping for release detection; as a result, we are retaining this performance standard for SIR in the final UST regulation because EPA and some other implementing agencies allow UST system owners and operators to use SIR for piping release detection.

Like other release detection methods, SIR must be capable of detecting a release of 0.2 gallon per hour or less with a probability of detection (Pd) of at least 0.95 and probability of false alarm (Pfa) of no more than 0.05. In a normal probability distribution, SIR data typically analyzed through the calculation of the reportable values of minimum detectable leak rate (MDL) and the leak declaration threshold (T) are related as follows:

- MDL is always greater than T
- Pd = (1-Pfa), then MDL = 2 times T (i.e., T = ½ MDL)

Any analysis of data indicating a threshold value greater than one-half minimum detectable leak rate should be investigated as a suspected release.

One commenter asked EPA to further clarify SIR. The commenter said EPA presented language in the 2011 proposed UST regulation that confused statistically based release detection methods currently in use. EPA agrees and is modifying the description of SIR in this final UST regulation at § 280.43(h) to narrow the focus of statistically based methods, which fit under this section. SIR encompasses only those statistically based methods where inventory data is gathered over a period and typically provided to a vendor who analyzes the data to determine the leak status of the tank. These methods do not include systems that incrementally gather measurements on an uninterrupted or nearly uninterrupted basis to determine the tank's leak status described in § 280.43(d) under continuous in tank leak detection.

This final UST regulation addresses these issues associated with SIR:

- SIR is not the same as inventory control
  - Historically, users, vendors, and regulators have incorrectly associated SIR with inventory control in § 280.43(a). SIR is more sophisticated than inventory control and not subject to the same

requirement to combine it with tank tightness testing and limit its use to 10 years. Section 280.50(c)(3) allows owners and operators to use a second month of inventory control data to confirm initial possible failure results. However, this allowance does not apply to SIR. Therefore, any failed SIR result must be investigated as a suspected release. Also, in the event of an inconclusive result, UST owners and operators must use another method of release detection to determine the leak status of the tank.

- Results for release detection, including SIR, are required within the 30-day monitoring period
  - EPA considered including a requirement in the final UST regulation that UST owners and operators obtain a record of SIR results within 30 days. However, this requirement is already covered in the release detection requirements. As § 280.41(a)(1) states, "Tanks . . . must be monitored for releases at least every 30 days using one of the methods listed in § 280.43(d) through (i) . . ." In this final UST regulation, EPA is adding a subsection to formally recognize SIR. A definitive result of pass or fail that identifies the tank's leak status is required within the 30-day monitoring period for all release detection methods, including SIR.
- Owners and operators must use another method of release detection if SIR results are inconclusive
  - For years, implementing agencies have been concerned about inconclusive results when using SIR for release detection. In 1993, EPA issued a policy regarding inconclusive SIR results,<sup>118</sup> which says all methods used to meet release detection requirements in § 280.41 must obtain a conclusive result of pass or fail within the 30-day monitoring period. All monitoring records must be maintained according to § 280.45. For SIR, this means UST owners and operators must obtain a report determining release status within the 30-day monitoring period. Another method of release detection is required when results are inconclusive; prior to sufficient data gathered to generate an initial report at startup; or when a report is not available for any month of

<sup>117</sup>National Work Group On Leak Detection Evaluations' *List Of Leak Detection Evaluations For Storage Tank Systems*: <http://www.nwglde.org/>.

<sup>118</sup>UST Technical Compendium, question and answer number 21:<http://epa.gov/oust/compend/rd.htm>.

monitoring. Owners and operators have not performed release detection until the release status of the UST system has been conclusively determined.

- Initial SIR report at startup
  - SIR methods need to gather data over a period in order to determine whether the tank is leaking. In some cases, implementing agencies have addressed significant lag times between when data is collected and when a tank status determination is available to owners and operators. NWGLDE's list of third-party evaluated methods indicates the data collection period required for SIR methods ranges from 15 to 90 days. However, most methods require between 23 and 30 days to gather sufficient measurements that provide an accurate result. Any method that goes beyond a 30-day monitoring period is inconsistent with and does not meet the release detection requirement. It is imperative that UST owners and operators determine the status of their tanks within the established monitoring period to avoid increased risk of releases. Therefore, owners and operators must use another release detection method at least once every 30 days until a SIR result is obtained. After that, owners and operators must have a SIR result at least once every 30 days.
- Meeting the 30-day monitoring requirement
  - EPA received several comments regarding the lack of timeliness associated with determining whether a leak exists when using SIR. In many instances, monitoring results are not produced until the next monitoring period or well beyond. These commenters also provided several suggestions for EPA to address the lag time between UST owners and operators collecting leak detection data and receiving late reporting on the leak status of the tank. EPA reiterates its established regulatory requirement that tanks must be monitored for releases at least once every 30 days.
  - Commenters provided other options for how owners and operators can meet the release detection requirement. One possible option is for EPA to require owners and operators perform a SIR analysis every 15 days using the last 30 days of data. This option results in a more frequent analysis of the UST system's leak status. EPA agrees this option would allow owners and operators to meet the

release detection requirement. Another option suggested was for EPA to add a requirement that SIR results must be returned to owners within seven days of the end of the data collection period; other commenters indicated various other times. EPA disagrees with this option because it would not meet the requirement to conduct release detection at least once every 30 days. Providing additional time for one method to determine whether a leak has occurred would be both unfair to UST system owners and operators using other release detection methods, as well as result in decreased environmental protection. To meet the release detection requirement for SIR, owners and operators could conduct a more frequent analysis, as one commenter suggested, or send data more expeditiously by electronic means. EPA is retaining the 30-day release detection requirement, which allows owners and operators to use whatever method they choose, as long as the method meets performance standards. UST system owners and operators can discuss changing their methods or data collection procedures with their SIR vendors in order to meet EPA's release detection requirement.

#### Interstitial Monitoring

The 2011 proposed UST regulation included three methods of continuous interstitial monitoring—vacuum, pressure, and liquid-filled methods—in § 280.43(g). EPA proposed these methods in conjunction with the periodic secondary containment testing requirement. Based on comments, EPA removed references to continuous interstitial monitoring in this final UST regulation. Because continuous interstitial monitoring is not discussed in this final UST regulation, EPA does not include language pertaining to continuous vacuum, pressure, or liquid-filled methods of interstitial monitoring in § 280.43(g). This does not impact release detection methods allowed under § 280.43(g).

#### 2. Updates to Codes of Practice Listed in the UST Regulation

This final UST regulation updates the codes of practice (also called standards or recommended practices) listed in the 1988 UST regulation to reflect new codes, changes to code names, and new nationally recognized associations and independent testing laboratories. The 1988 UST regulation relied on codes of practice developed by nationally

recognized associations or independent testing laboratories to implement many of the requirements. EPA will continue to rely on codes of practice in this final UST regulation.

EPA reviewed information from more than 25 code making groups on more than 200 codes of practice, which have been developed or revised since the 1988 UST regulation.<sup>119</sup> As a result, EPA is:

- Updating titles and designations of existing codes of practice;
- Adding applicable codes of practice developed after the 1988 UST regulation was finalized;
- Moving codes of practice that were misplaced in the 1988 UST regulation; and
- Removing codes of practice that:
  - Are out of date, no longer available, withdrawn, or rescinded;
  - No longer provide any information appropriate to or relevant to the final UST regulation where it was referenced; or
  - Are no longer needed.

For example, EPA listed the Association for Composite Tanks ACT-100 tank standard in § 280.20(a)(3) of the 1988 UST regulation as a code of practice for meeting the clad tank requirement. EPA is removing this code of practice from this final UST regulation because both the association and code of practice no longer exist.

In several cases, EPA is moving a code of practice from one section of the final UST regulation to another. For example, EPA is moving Steel Tank Institute Standard F841, *Standard for Dual Wall Underground Steel Storage Tanks* from § 280.43(g)—interstitial monitoring to § 280.20(a)(2), which covers steel tanks. EPA thinks it makes more sense for this to be included under the UST design and construction standards, rather than as a release detection standard. EPA used similar rationale when relocating other codes of practice in this final UST regulation.

As in the preamble to the 1988 UST regulation, this final UST regulation does not require use of a specific version or edition of any code. The consensus codes are frequently revised and updated. EPA recognizes that requiring use of the most recent edition of a code of practice would cause undue confusion in the regulated community. For example, owners and operators install UST systems according to codes

<sup>119</sup> E2, Incorporated, memoranda and analyses submitted under Contract EP-W-05-018, U.S. Environmental Protection Agency. *Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support*. These supporting materials are located in the docket EPA-HQ-UST-2011-0301.

of practice current at the time of installation, but may not have equipment in the ground that meets codes that are current 10 years later. EPA concludes that the industry codes in effect at the date of publication of this final UST regulation are protective of human health and the environment. Using future editions of codes instead of editions now in effect is not required, but is encouraged; updated codes will probably provide for newer, more effective technologies and practices. Using past codes, which have been replaced by new editions prior to the effective date of this final UST regulation, is not allowed because some past recommended industry practices may not represent current codes of practice or may not adequately cover the regulatory requirement.

Consistent with the preamble to the 1988 UST regulation, this final UST regulation interprets the term nationally recognized organization to mean a technical or professional organization that has issued standards formed by the consensus of its members. The organization should consider all relevant viewpoints and interests, including those of consumers and future or existing potential industry participants. The resulting standards should be widely accepted and based on a broad range of technical information, and performance criteria should be central elements of the resulting standards. EPA regards the following organizations, whose codes of practice are listed in this final UST regulation, as examples of nationally recognized organizations:

American Petroleum Institute (API)

American Society for Testing and Materials (ASTM)

Fiberglass Tank and Pipe Institute (FTPI)

National Association of Corrosion Engineers (NACE)

National Fire Protection Association (NFPA)

National Leak Prevention Association (NLPA)

Petroleum Equipment Institute (PEI)  
Steel Tank Institute (STI)

Underwriters Laboratory (UL)

EPA received broad support for updating the codes of practice listed in the final UST regulation. Several commenters pointed out errors to titles or designations in the 2011 proposed UST regulation. This final UST regulation corrects these errors.

EPA received comments on the 2011 proposed UST regulation asking that we add or remove several codes of practice. EPA reviewed PEI's recommended practice for testing and verification of

spill, overflow, leak detection, and secondary containment equipment (RP 1200), and in this final UST regulation is including it in areas where testing or inspecting UST equipment is required. EPA also reviewed and is including PEI's recommended practice for the inspection and maintenance of UST systems (RP 900) in the walkthrough inspections portion of this final UST regulation. EPA is not including the Canadian code for installing fiber reinforced plastic linings (ULC/ORD-C58.4-05), because this final UST regulation no longer allows owners and operators to install internal linings to meet the corrosion protection upgrade. Owners may continue using internal linings for other reasons such as compatibility or secondary containment; but EPA determined there are no appropriate areas in this final UST regulation to list lining codes of practice for those purposes. Also, EPA is not including PEI's recommended practice for the inspection and maintenance of motor fuel dispensing equipment (RP 500), because it is a standard for inspecting motor fuel dispensing equipment and Subtitle I of the SWDA does not give EPA the authority to regulate aboveground equipment such as motor fuel dispensing equipment. Finally, EPA is not including STI's storage tank maintenance standard (R-111) as an option for periodic walkthrough inspections because the content of the 2011 version of this code of practice only focused on water and contaminants in the tank along with compatibility. Except for a monthly inspection checklist, this code of practice does not describe how to conduct a periodic walkthrough inspection. If STI changes this code of practice, implementing agencies may determine whether the newer version is adequate for meeting the periodic walkthrough inspection requirement in this final UST regulation.

In the 2011 proposed UST regulation, EPA asked for input on whether the requirement to follow codes of practice and manufacturer's instructions under the installation requirements in § 280.20(d) should apply to just tanks and piping (as stated in the 1988 UST regulation) or apply to the UST system as a whole. Both the 1988 UST regulation and this final UST regulation define UST system as the underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any. Commenters strongly supported requiring installation of the UST system, rather than just tanks and piping, according to a code of practice

developed by a nationally recognized association or independent testing laboratory and according to manufacturer's instructions. For these reasons, this final UST regulation replaces tanks and piping with UST system in § 280.20(d).

### 3. Updates To Remove Old Upgrade and Implementation Deadlines

This final UST regulation removes references to the 1998 deadline and old phase in schedules, while continuing to allow testing of corrosion protection and release detection. These changes acknowledge that the 1998 deadline for upgrading UST systems with release prevention and the 1990s release detection and financial responsibility deadlines passed more than a decade ago. In addition, as of 2010 implementing agencies have inspected all regulated UST systems at least once for compliance with release detection, release prevention, and financial responsibility requirements.

EPA will no longer allow owners and operators to upgrade UST systems if they never met the 1998 upgrade requirements, unless the implementing agency determines the UST system is acceptable to upgrade. Owners and operators must permanently close non-upgraded UST systems according to the closure requirements in subpart G. Non-upgraded UST systems are older and have been in the ground for more than two decades. In addition, metal USTs and piping without corrosion protection pose a significant risk to human health and the environment, because unprotected metal in contact with soil corrodes. EPA is allowing implementing agencies to make case-by-case determinations on when to allow upgrades. EPA does not expect implementing agencies to allow continued use of tanks or piping not upgraded with corrosion protection. However, some implementing agencies may decide to allow owners and operators of UST systems with corrosion protection, but without spill or overflow prevention, to add spill or overflow prevention instead of requiring permanent closure.

EPA will continue to allow UST systems with field-constructed tanks and airport hydrant systems to be upgraded with spill, overflow, and corrosion protection under subpart K of the UST regulation. See section C-2 for additional information on upgrading these UST systems.

To meet the release detection requirement, § 280.41 of the 1988 UST regulation allowed owners and operators of USTs not upgraded with corrosion protection to use a

combination of monthly inventory control with annual tank tightness testing until December 22, 1998. Since owners and operators no longer have the option to use inventory control and annual tightness testing, EPA is removing this option from this final UST regulation.

In response to comments received, EPA is removing the definition of petroleum marketing firm from subpart H of this final UST regulation. EPA only used the term petroleum marketing firm in the compliance dates section as it related to when these firms needed to meet the financial responsibility requirements. Since the compliance dates for conventional UST systems have passed more than a decade ago, the term no longer needs to be defined.

#### 4. Editorial Corrections and Technical Amendments

This final UST regulation includes editorial corrections and technical amendments to the 1988 UST regulation. Editorial corrections include: Correcting misspellings; capitalizing words; removing unused acronyms; using conventional number formatting; and appropriately referring to parts, subparts, sections, and paragraphs. In addition, this final UST regulation adds technical amendments, which include updating the final UST regulation to incorporate statutory changes that occurred since the 1988 UST regulation was promulgated and clarifying longstanding Agency interpretations and policies. EPA is making the following technical amendments in this final UST regulation:

- § 280.10(c)(4)—EPA is revising the Nuclear Regulatory Commission citation to be consistent with the Spill Prevention Control and Countermeasures requirements in 40 CFR part 112. This final UST regulation partially excludes emergency generator systems at nuclear power generation facilities licensed by the Nuclear Regulatory Commission that are subject to Nuclear Regulatory Commission requirements regarding design and quality criteria, including but not limited to 10 CFR part 50. EPA originally proposed only deleting appendix A from the regulatory citation. However, EPA agrees with commenters that using language consistent with the Spill Prevention Control and Countermeasures requirements in 40 CFR part 112 provides clarity and consistency for owners and operators of emergency generator UST systems at nuclear power generation facilities.

- § 280.12—EPA is revising exclusion (ii) of the definition of UST to

incorporate a revision in section 9001 of the Solid Waste Disposal Act.

- This final UST regulation adds a technical amendment to § 280.43(b), which codifies longstanding Agency policy adding additional flexibility for using manual tank gauging. This change updates UST capacity allowances and testing durations when using manual tank gauging. Since 1990, EPA allowed these deviations from the 1988 UST regulation through policy and included them in outreach publications.

- The 2011 proposed UST regulation removed the requirement for inventory control for the automatic tank gauging release detection method in § 280.43(d) because some interpreted the language as requiring both inventory control and automatic tank gauging. However, EPA agrees with commenters who indicated the language is necessary to ensure automatic tank gauging equipment meets inventory control performance standards in § 280.43(a). More specifically, EPA is keeping the regulatory language to ensure owners and operators continue to measure for water as described in the inventory control requirement. This final UST regulation departs from the proposal and retains language established in the 1988 UST regulation that automatic tank gauging equipment also must meet the inventory control requirements. This final UST regulation does not require owners and operators to perform inventory control in addition to automatic tank gauging.

- This final UST regulation expressly states which new operation and maintenance requirements owners and operators do not have to meet for UST systems in temporary closure. Owners and operators of temporarily closed UST systems that are empty do not have to perform the following periodic release detection operation and maintenance testing and inspections in subparts C and D: 30 day release detection checks, annual sump checks, and annual handheld release detection checks described in the walkthrough inspection section (see section B–1); testing of containment sumps used for interstitial monitoring described in the secondary containment testing section (see section B–4); and testing of release detection equipment described in the release detection equipment testing section (see section B–5). These requirements are unnecessary as long as the temporarily closed UST system is empty because release detection is not required in the first place. In addition, owners and operators of any UST system in temporary closure are not required to conduct the following periodic operation and maintenance

testing and inspections for spill prevention equipment and overfill prevention equipment in subpart C: Spill prevention equipment testing (see section B–2); overfill prevention equipment inspections (see section B–3); or spill prevention equipment checks described in walkthrough inspections (see section B–1). Spill and overfill testing or inspections are not required for UST systems in temporary closure because those systems are not receiving deliveries of regulated substances. Finally, as a conforming amendment, this final UST regulation adds subpart K to the release detection citation because new release detection requirements for field-constructed tanks and airport hydrant systems are included in that subpart.

- This final UST regulation amends the definition of the term accidental release in § 280.92 so it matches the definition described in the preamble to the 1988 UST regulation for the financial responsibility requirements (53 FR 43334). EPA intended the definition in the preamble to be included in the 1988 UST regulation, but failed to include the concept of releases as a result of operating the UST. Through this amendment, EPA is clarifying that owners and operators are required to have financial responsibility for releases arising from operating USTs (including releases due to filling USTs and releases occurring at dispensers).

- § 280.94(a)(1)—EPA proposed to include the local government option citations in this section. However, those options are not included in this final UST regulation because they are already included in § 280.94(a)(2).

- § 280.97(b)(1) and (2)—EPA added the local government options as part of the reference since those options are also viable financial responsibility mechanisms.

- To make the local government bond rating test consistent with the requirements of the financial test in § 280.94, this final UST regulation adds a new subsection to § 280.104.

- To ensure the definition of UST technical standards in subpart I, *Lender Liability*, includes all of the preventative and operating requirements in this final UST regulation, EPA revised the definition to include subparts J and K as part of the preventative and operating requirements under 40 CFR part 280.

- To add clarity about the statement for shipping tickets and invoices in appendix III, this final UST regulation revises the appendix.

- Finally, the final UST regulation revises sections that use the terms operating life or properly closed to be permanently closed or when a change-



in-service occurs; this amendment will clearly indicate when the regulated operating life of an UST system ends. This final UST regulation does not define an operating life or proper closure. Rather, it describes permanent closure and change-in-service.

*F. Alternative Options EPA Considered*

In developing this final UST regulation (hereafter the Selected

Option), EPA considered and evaluated variations of a subset of the regulatory requirements using two alternative options (hereafter Option 1 and Option 2). The table below highlights differences between the Selected Option and Options 1 and 2. Some of the regulatory requirements do not vary across the options (for example, notification of ownership changes is

required in all three). As a result, regulatory changes discussed earlier in the preamble, but not listed here, mean those changes are in effect in all three options. Overall, Options 1 and 2 consist of regulatory changes that are more and less stringent, respectively, than those of the Selected Option.

COMPARISON OF SELECTED OPTION AND OPTIONS 1 AND 2

Regulatory requirement	Options		
	Selected	1	2
Walkthrough inspections .....	30 days .....	30 days (per 2011 proposed UST regulation)*.	Quarterly.
Overfill prevention equipment inspections .....	3 years .....	Annual .....	Not required.
Spill prevention equipment tests .....	3 years .....	Annual .....	3 years.
Containment sump tests .....	3 years .....	Annual .....	Not required.
Elimination of flow restrictors in vent lines for all new tanks and when overfill devices are replaced.	Required .....	Required .....	No change from 1988 UST regulation.
Operability checks for release detection equipment .....	Annual (plus annual check of sumps).	Annual (per 2011 proposed UST regulation)*.	Annual (plus annual check of sumps).
Groundwater and vapor monitoring for release detection	Continue to allow with site assessment.	5-year phase out (per 2011 proposed UST regulation)*.	No change from 1988 UST regulation.
Remove release detection deferral for emergency generator tanks.	Required .....	Required (per 2011 proposed UST regulation)*.	Required.
Requirements for demonstrating compatibility for fuels containing >E10 and >B20.	Required .....	Required (per 2011 proposed UST regulation)*.	No change from 1988 UST regulation.
Remove deferrals for airport hydrant fuel distribution systems and UST systems with field-constructed tanks.	Regulate under alternative release detection requirements.	Require airport hydrant systems and field-constructed tanks notify implementing agency and report releases (with no other new requirements).	Maintain deferral.

\* In the 2011 proposed UST regulation, these regulatory changes generally consisted of more or stricter requirements than what is in the final UST regulation. For example, the 30-day walkthrough inspections in the 2011 proposed UST regulation included monthly check of sumps. Please see the 2011 proposed UST regulation for details.

Below we explain Options 1 and 2, as well as our rationale for each. (Note that EPA conducted a regulatory impact analysis for all three options. The results are discussed in the RIA document titled *Assessment of the Potential Costs, Benefits, and Other Impacts of the Final Revisions to EPA's Underground Storage Tank Regulations*, which is available in the docket for this action.)

EPA's Rationale for Option 1

EPA considered keeping walkthrough inspections as described in the 2011 proposed UST regulation. However, based on concerns from commenters regarding the proposed walkthrough inspection requirements, EPA decided to revise the components of the walkthrough inspection. See section B-1 for details regarding this final UST regulation on walkthrough inspections.

EPA also considered requiring annual inspections of overfill prevention equipment, annual spill prevention equipment tests, and annual

containment sump testing. After reviewing comments, considering the benefits of establishing one consistent implementation time frame across as many regulatory requirements as possible, as well as assessing the cost of requiring annual tests and inspections, EPA is requiring owners and operators inspect overfill prevention equipment and test spill prevention equipment and containment sumps once every three years. This balances the benefits of ensuring properly functioning equipment with the potential administrative burden and costs imposed on owners and operators.

When considering operability checks for release detection equipment, EPA examined the possibility of keeping the operability checks as described in the 2011 proposed UST regulation. However, based on comments, EPA decided to revise some components of the operability checks. This resulted in allowing owners and operators to perform some release detection checks

on an annual basis instead of every 30 days. See section B-5 for details regarding release detection equipment testing.

EPA also considered maintaining the 2011 proposed option of a five year phase out of groundwater and vapor monitoring as permissible release detection methods. Based on concerns from states where groundwater and vapor monitoring are used frequently by owners and operators, EPA is retaining groundwater and vapor monitoring as long as owners and operators demonstrate proper installation and performance through a site assessment that must be maintained as long as the methods are used. See section D-6 for details regarding groundwater and vapor monitoring.

EPA also considered maintaining its 2011 proposed requirements for release detection of emergency generator tanks and for demonstrating compatibility. However, as discussed in earlier sections (C-1 for emergency generator tanks and D-4 for compatibility), EPA is

revising these requirements in response to comments. For emergency generator tanks, we are revising the implementation time frame for consistency with other implementation dates. For compatibility, EPA is removing the recordkeeping requirement for new installations to make it easier for owners and operators to be in compliance. EPA is also adding a list of equipment that must demonstrate compatibility with storing ethanol blends greater than 10 percent or biodiesel blends greater than 20 percent, or any other regulated substance identified by the implementing agency. This will help owners and operators understand which UST equipment must be demonstrated to be compatible.

Lastly, EPA considered requiring owners and operators of airport hydrants systems and field-constructed tanks submit a one-time notice of existence in addition to reporting confirmed releases to the implementing agency. Owners and operators of these systems would not be subject to any additional regulatory requirements under Option 1. After weighing the availability of release detection options for these systems, the applicability of other requirements in this final UST regulation, and the potential human health and environmental impact of releases from these systems, EPA is fully regulating these systems. See C-2 for EPA's rationale for regulating airport hydrant systems and field-constructed tanks.

#### EPA's Rationale for Option 2

In comparing costs with benefits of the final regulatory changes, EPA weighed different frequencies for walkthrough inspections and periodic equipment inspections or tests. EPA assessed quarterly walkthrough inspections, and not requiring overfill prevention equipment inspections and containment sump testing as ways to reduce potential cost impacts on owners and operators. Compared to the 30-day requirement, quarterly walkthrough inspections would reduce costs to owners and operators. However, EPA thinks a period less frequent than 30 days for walkthrough inspections would considerably reduce benefits. High operator turnover and the frequency of deliveries both contribute to the need for 30-day walkthrough inspections. With that in mind, today EPA is requiring 30-day walkthrough inspections so owners and operators can consistently and routinely verify proper spill prevention and release detection performance. This will ensure problems are detected before a release occurs.

EPA also considered not requiring overfill prevention equipment inspections and containment sump testing. However, as explained in sections B-3, Overfill Prevention Equipment Inspections and B-4, Secondary Containment Tests, tank overfills and containment sump areas account for a significant amount of releases from UST systems. As a result, EPA is requiring overfill prevention equipment inspections and containment sump testing (for containment sumps used for interstitial monitoring) once every three years. Overfill prevention equipment inspections will ensure overfill prevention equipment is operating properly. Similarly, containment sump testing will ensure that containment sumps used for interstitial monitoring will be liquid tight.

To reduce total compliance costs of this final UST regulation for owners and operators, EPA considered allowing continued use of flow restrictors in vent lines (that is, ball float valves) as an acceptable form of overfill prevention equipment. After considering public comments, EPA maintains its position that vent line flow restrictors present problems for operability and safety reasons. As described in section D-1, EPA is eliminating ball float valves as an overfill prevention equipment option for all new tanks and when overfill prevention equipment is replaced in existing tanks.

EPA considered maintaining the existing requirements for groundwater and vapor monitoring, in particular retaining the two as permissible release detection methods with no changes to the 1988 UST regulation. However, given the numerous concerns that have arisen over the years regarding these two release detection methods, such as misapplications and improper designs of monitoring wells, EPA is retaining these two release detection methods only if owners and operators demonstrate proper installation and performance through a site assessment. See section D-6 for details regarding groundwater and vapor monitoring.

EPA also considered only retaining the current requirement for owners and operators to use UST systems made of or lined with materials that are compatible with the substance stored in the UST system. However, EPA understands that the chemical and physical properties of ethanol and biodiesel can be more degrading to certain UST materials than petroleum alone. As the use of ethanol- and biodiesel-blended fuels increases, EPA is concerned that not all UST system equipment or components are

compatible with these fuels. Therefore, EPA is requiring owners and operators demonstrate compatibility of certain UST system components when storing ethanol blends greater than 10 percent and biodiesel blends greater than 20 percent. Owners and operators can demonstrate compatibility of required components by using one of the three options described in this final UST regulation. See section D-4 for details regarding compatibility.

Finally, EPA considered maintaining deferrals for airport hydrant systems and field-constructed tanks. However, as explained above, after weighing the availability of release detection options for these systems, the applicability of the other requirements in this final UST regulation, and the potential human health and environmental impact of releases from these systems, EPA is fully regulating these systems. See C-2 for EPA's rationale for regulating airport hydrant systems and field-constructed tanks.

#### V. Updates to State Program Approval Requirements

EPA is making changes to the 1988 SPA regulation (40 CFR part 281) to make it consistent with certain Energy Policy Act requirements and certain revisions to the 1988 UST regulation (40 CFR part 280). Commenters generally supported EPA changing portions of the 1988 SPA regulation and making it consistent with revisions to the 1988 UST regulation. Commenters supported EPA keeping the general format of the 1988 SPA regulation and not making the final SPA regulation as explicit or prescriptive as this final UST regulation.

EPA is making these substantive changes to the 1988 SPA regulation.

- § 281.12(b)—adding definitional exceptions for several Energy Policy Act definitions
- §§ 281.30(a), 281.33(c)(2), and 281.33(d)(3)—require secondary containment for new or replaced tanks and piping and under-dispenser containment for new motor fuel dispenser systems for UST systems located within 1,000 feet of a potable drinking water well or community water system, unless a state requires manufacturer and installer financial responsibility according to section 9003(i)(2) of the Solid Waste Disposal Act
- §§ 281.30(a)(1) and 281.33(d)(3)—exclude safe suction piping, airport hydrant system piping, and field-constructed tank piping from being required to meet the secondary containment and interstitial monitoring requirements

- § 281.30(b)—eliminate flow restrictors for new or replaced overflow prevention
- § 281.30(c)—add notification for ownership changes
- §§ 281.31 and 281.33(b)—delete upgrading requirements and eliminate phase-in schedule; add phase-in schedule for airport hydrant fuel distribution systems and UST systems with field-constructed tanks
- § 281.32(c)—add requirement for states to include provisions for demonstrating compatibility with new and innovative regulated substances or other regulated substances identified by implementing agencies or include other provisions determined by the implementing agency to be no less protective of human health and the environment than the provisions for demonstrating compatibility
- §§ 281.32(e) and (f) and 281.33(a)(3)—add periodic testing or inspection of spill and overflow prevention equipment, containment sumps used for interstitial monitoring of piping, and mechanical and electronic release detection components; and operation and maintenance walkthrough inspections, as well as maintaining associated records
- § 281.33(c)—limit use of monthly inventory control in combination with tank tightness testing conducted every five years for the first ten years after the tank is installed or upgraded, if the tank was installed prior to a state receiving SPA
- § 281.33(e)—require hazardous substance USTs to only use secondary containment with interstitial monitoring
- § 281.34(a)(1)—add interstitial space may have been compromised to suspected releases
- § 281.37—eliminate phase-in requirement for financial responsibility
- § 281.39—require operator training according to § 9010 of the Solid Waste Disposal Act
- § 281.41(a)(4)—add authority to prohibit deliveries

EPA is making these technical changes to the SPA regulation.

- § 281.10—change subpart to part
- §§ 281.11(c), 281.20(d), 281.21(a)(2), 281.23, 281.50(a), and formerly § 281.51—eliminate interim approval
- § 281.12(a)(2)—change Indian lands to Indian country
- Formerly § 281.32(e)—eliminate requirement to maintain upgrade records
- Formerly § 281.38—eliminate reserved section for financial

- responsibility for USTs containing hazardous substances
- Move § 281.39 to § 281.38—Lender Liability
- §§ 281.50(e) and 281.51(c)(1)—clarify how to provide public notice to attract statewide attention
- § 281.51, formerly § 281.52—add requirement for approved states to submit a revised application within three years of 40 CFR part 281 changes that require a program revision
- § 281.61—move § 281.60(b) to § 281.61(b)(2)

#### Background Information

The 1988 SPA regulation in 40 CFR part 281 sets criteria state UST programs must meet to receive EPA's approval to operate in lieu of the federal UST program. The 1988 SPA regulation sets performance criteria states must meet to be considered no less stringent than the federal UST regulation (hereafter 40 CFR part 280) and provides requirements for states to have adequate enforcement. It also details the components of a SPA application.

EPA is changing the 1988 SPA regulation and making it consistent with this final UST regulation. By doing so, EPA will require states to adopt requirements similar to the final UST regulation, in order to obtain or retain SPA. Commenters supported maintaining the general format of the 1988 SPA regulation and EPA is keeping that general format. We are not making this final SPA regulation as explicit or prescriptive as this final UST regulation. Finally, EPA is making technical corrections and adding a deadline for states to apply for revised state program approval.

#### Addressing Energy Policy Act Requirements and 40 CFR Part 280 Changes

##### How SPA Works

This final UST regulation primarily impacts the 1988 SPA regulation in 40 CFR part 281, subpart C—Criteria for No Less Stringent. As of 2014, 40 states, including the District of Columbia and Puerto Rico, have state program approval and state UST requirements apply in lieu of the federal requirements. To ensure these jurisdictions and any other states or territories obtaining SPA adopt these 40 CFR part 280 changes, EPA must update the 1988 SPA regulations in 40 CFR part 281, subpart C—Criteria for No Less Stringent. To continue providing states with flexibility and not disrupt current state programs, EPA is revising the 1988 SPA regulation to make it consistent

with, but not identical to, the 40 CFR part 280 changes. Instead, EPA is making changes to the 1988 SPA regulation in a less prescriptive manner than the changes to 40 CFR part 280. Since 1988, this approach has proven a successful way to implement the UST program and provide environmental protection.

The 1988 SPA regulation developed no less stringent criteria in the form of objectives.<sup>120</sup> EPA is continuing this format so that, taken as a whole, state programs will be no less stringent than the federal requirements, even though state programs may deviate slightly from what is explicitly required in 40 CFR part 280. For example, § 281.30 covers the no less stringent requirement for new UST system design, construction, and installation; it corresponds to § 280.20 of this final UST regulation, but is much less explicit about requirements.

According to § 281.30 and in order to receive SPA, a state must require all new UST systems “. . . [b]e designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion . . .”. In contrast, § 280.20 is much more explicit about how tank owners and operators ensure their tanks and piping prevent releases. It states what is required to prevent releases and provides codes of practice to comply. Although § 281.30 is less explicit, it nonetheless ensures owners and operators in approved states install UST systems that prevent releases and provides states flexibility in achieving that goal.

##### Goal Oriented Changes

EPA is making goal oriented changes to subpart C—Criteria for No Less Stringent. By the term goal oriented changes, EPA means changes in which states have some flexibility as to how they meet the goals of particular sections of the final SPA regulation. These changes reflect certain 40 CFR part 280 changes.

- § 281.30(c)—add notification for ownership changes
- §§ 281.31 and 281.33(b)—add a phase-in schedule for upgrading previously deferred airport hydrant fuel distribution systems and UST systems with field-constructed tanks
- § 281.32(c)—add requirement for states to include provisions for demonstrating compatibility with new and innovative regulated substances or other regulated substances identified by implementing agencies

<sup>120</sup> 53 FR 37216, September 23, 1988.

or include other provisions determined by the implementing agency to be no less protective of human health and the environment than the provisions for demonstrating compatibility

- §§ 281.32(e) and (f) and 281.33(a)(3)—add periodic testing or inspection of spill and overflow prevention equipment, containment sumps used for interstitial monitoring of piping, and mechanical and electronic release detection components; and operation and maintenance walkthrough inspections, as well as maintaining associated records

The ownership change notification in § 280.22 requires anyone who assumes ownership of an UST system to notify the implementing agency within 30 days of assuming ownership and specifies what notification must include. However, the SPA regulation change in § 281.30(c) is much less prescriptive and indicates that states require owners and operators to “. . . notify the implementing state agency within a reasonable time frame when assuming ownership of an UST system.” This provides states some flexibility in complying, including allowing them to continue relying on an annual tank registration program to meet this requirement. This is a reasonable way to ensure states know who owns USTs in their jurisdictions. EPA does not have an annual UST registration program, so we specify a time frame in § 280.22 because we want to know who owns tanks in jurisdictions where we are the implementing agency.

EPA is requiring that previously deferred airport hydrant fuel distribution systems and UST systems with field-constructed tanks meet specific upgrade requirements in subpart K. This is one way that states can achieve compliance with § 281.31, which requires states ensure tanks are upgraded to prevent releases due to corrosion, spills, and overfills or be permanently closed. EPA concludes these more general requirements are sufficient for a state program to protect human health and the environment because they require UST systems to “. . . prevent releases for their operating life. . . .” EPA thinks it is also adequate to upgrade previously deferred systems to this standard.

Additionally, EPA is requiring airport hydrant systems, field-constructed tanks, and emergency generator tanks be upgraded within three years of the effective date of the state requirements. For states which did not defer these systems or already had their requirements in place before the

effective date of this final SPA regulation, the three year requirement does not apply. In the past, EPA experienced issues with requiring states to have a particular requirement by a certain date in order to receive SPA. States applying for SPA after a deadline passed often had difficulty implementing or obtaining a retroactive requirement. EPA understands that states may have given owners and operators of UST systems previously deferred by EPA different time periods than three years to initially meet their requirements.

In § 281.32(c), EPA is adding a requirement for states to include provisions for demonstrating compatibility with new and innovative regulated substances or other regulated substances identified by implementing agencies or include other provisions determined by the implementing agency to be no less protective of human health and the environment than the provisions for demonstrating compatibility. EPA is concerned about the compatibility of new and innovative fuels with the existing UST system infrastructure. We added to § 280.32 methods for demonstrating compatibility of UST systems with certain ethanol and biodiesel blends in response to this concern. State UST implementing agencies also need to ensure owners and operators only store regulated substances compatible with their UST systems. Requiring states have provisions in place for storing new and innovative regulated substances in order to receive SPA ensures states are taking appropriate steps to ensure compatibility of the UST system with a rapidly expanding spectrum of traditional and new and innovative fuels.

This final UST regulation adds various UST operation and maintenance requirements. In 40 CFR part 280, EPA is requiring specific frequencies and procedures for testing or inspecting spill and overflow prevention equipment, testing containment sumps used for interstitial monitoring of piping, testing release detection equipment, and conducting operation and maintenance walkthrough inspections. According to § 281.32, states must require these tests or inspections in a manner and frequency that ensures proper functionality of equipment, includes proper operation and maintenance of the UST system, and prevents releases for the life of the equipment and UST system. EPA thinks this approach allows states that implement these requirements despite different frequencies or manners, to receive SPA, as long as their requirements

sufficiently ensure properly functioning non-releasing UST systems. EPA is updating § 281.32(g) by adding these activities to the recordkeeping requirements of SPA.

#### Energy Policy Act Changes

In this final SPA regulation, EPA is addressing Energy Policy Act requirements more generally than in this final UST regulation; however, the Energy Policy Act requirements are slightly different than the goal oriented approach discussed above. The Energy Policy Act amends the Solid Waste Disposal Act and requires states, which receive federal Subtitle I money, to adopt operator training requirements, delivery prohibition, and additional measures to protect groundwater from contamination. In the additional measures to protect groundwater provision, states must require either secondary containment and interstitial monitoring for new or replaced tanks and piping within 1,000 feet of a potable drinking water well or community water system, or manufacturer and installer financial responsibility and installer certification. The secondary containment requirement includes under-dispenser containment on any new motor fuel dispenser system within 1,000 feet of a potable drinking water well or community water system.

EPA developed guidelines for states to implement the Energy Policy Act requirements; many states implemented the Energy Policy Act requirements according to these guidelines. In order to impose similar requirements in Indian country and in states that do not adopt Energy Policy Act requirements, EPA is adding secondary containment and operator training to these 40 CFR part 280 requirements. However, it is not EPA's intent to supersede programs states developed to meet Energy Policy Act requirements.

Several commenters had concerns about the Energy Policy Act provisions. Seven commenters wanted to ensure states only have to meet Energy Policy Act grant guidelines and do not have to change their regulations to mirror the 40 CFR part 280 requirements in order to obtain SPA. These commenters were also concerned that EPA requirements for secondary containment and operator training could be considered more stringent than state requirements that met the grant guidelines. EPA agrees that requiring states to alter newly implemented provisions could cause unnecessary work for states and UST owners. Therefore, this final SPA regulation explicitly addresses the secondary containment, manufacturer and installer financial responsibility

and installer certification, delivery prohibition, and operator training requirements that appear in the Energy Policy Act. EPA agrees that it is not necessary for states already meeting these Energy Policy Act requirements to change their programs in order to receive or retain SPA. EPA was unable to incorporate a similar requirement in 40 CFR part 280, so states will need to obtain SPA in order to ensure there is no difference between state and federal requirements with respect to Energy Policy Act requirements.

EPA is adding definitional exceptions in § 281.12(b). This final SPA regulation allows states to use definitions associated with tank and piping secondary containment and operator training that are different than those in 40 CFR part 280 as long as those definitions are consistent with definitions described in sections 9003 and 9010 of the Solid Waste Disposal Act. This change provides states with additional flexibility in defining key terms.

EPA is adding additional measures to protect groundwater and is adding operator training requirements in subpart C (§§ 281.22(d)(3), 281.30(a), 281.33(c)(2), and 281.39). Delivery prohibition is in subpart D—Adequate Enforcement of Compliance (§ 281.40(a)). Because delivery prohibition is an enforcement option, EPA is requiring states have authority to prohibit deliveries according to the Energy Policy Act and EPA's grant guidelines, rather than make this a no less stringent requirement.

EPA is not adding delivery prohibition to 40 CFR part 280 because delivery prohibition is primarily an enforcement option for implementing agencies; it is not a requirement for owners and operators. Because the Energy Policy Act gives EPA clear delivery prohibition enforcement authority, we do not need to add delivery prohibition to this final UST regulation. However, the only way to ensure states have that same authority is to require states implement delivery prohibition as a prerequisite for SPA, as required in § 281.40(a).

#### Specific Changes

EPA is making the changes listed below to subpart C—Criteria for No Less Stringent to reflect changes made in 40 CFR part 280. These changes ensure states adopt the changes made in 40 CFR part 280 and are able to receive SPA.

- §§ 281.30(a)(1) and 281.33(d)(3)—exclude safe suction piping, airport hydrant system piping, and field-constructed tank piping from being

required to meet the secondary containment and interstitial monitoring requirements

- § 281.30(b)—eliminate flow restrictors for new or replaced overfill prevention
- § 281.31—delete upgrading requirements
- § 281.33(c)—limit use of monthly inventory control in combination with tank tightness testing conducted every five years for the first ten years after the tank is installed or upgraded, if the tank was installed prior to a state receiving SPA
- § 281.33(e)—require hazardous substance USTs to only use secondary containment with interstitial monitoring
- § 281.34(a)(1)—add “. . . interstitial space may have been compromised . . .” to suspected releases
- § 281.37—eliminate phase-in requirement for financial responsibility

In §§ 281.30(a)(1) and 281.33(d)(3) EPA is not requiring safe suction piping, airport hydrant system piping, and piping associated with field-constructed tanks greater than 50,000 gallons in capacity to meet the secondary containment and interstitial monitoring requirements. Suction piping that meets the requirements of § 281.33(d)(2)(ii) has characteristics that ensure little, if any, regulated substances will be released if a break occurs in the line. For additional information see section A–2, Secondary Containment. EPA is not requiring secondary containment for piping associated with field-constructed tanks greater than 50,000 gallons in capacity and airport hydrant system piping due to sloping and corrosion concerns. For additional information, see section C–2, Airport Hydrant Fuel Distribution Systems and UST Systems with Field-Constructed Tanks.

In § 281.30(b), EPA is requiring states, which receive SPA, not allow installation of flow restrictors (commonly referred to as ball floats) in vent lines for overfill prevention for new installations or when flow restrictors need to be replaced. The existing goal of § 281.30(b) is for states to require that UST systems have equipment to prevent spills and overfills. In this final UST regulation, EPA maintains the overall goal to prevent spills and overfills; however, owners and operators can no longer install ball floats to achieve that goal.

The deadlines for upgrades and for owners and operators to obtain financial responsibility have passed. As a result, EPA is deleting the 1988 UST regulation deadlines in the final SPA regulation. In

§§ 281.31 and 281.33(b), EPA is removing the option for UST upgrades, except for USTs deferred in the 1988 UST regulation. In § 281.37, we are eliminating the financial responsibility phase-in schedule. Please note EPA is allowing states to implement UST requirements, such as upgrades and operation and maintenance, after the deadlines in 40 CFR part 280. EPA is taking this action because experience has shown that some states had difficulties implementing a retroactive requirement when applying for SPA after a federal deadline has passed.

In § 281.33(c), EPA is allowing monthly inventory control in combination with tank tightness testing conducted every five years as a release detection method for the first ten years after a tank is installed or upgraded, only if a tank was installed prior to a state receiving SPA for the 1988 UST regulation. This reflects a change in 40 CFR part 280 and avoids another problem in the 1988 SPA regulation. First, EPA is eliminating this method for new installations. Second, EPA is tying the date for eliminating this method to the effective date of a state's regulations. EPA concludes it is better to tie deadlines in the final SPA regulation to the effective date of states' regulations, rather than dictate specific dates for all states. In the 2011 proposed SPA regulation, we tied the deadlines to the date a state submitted its SPA application or revised application. However, in this final SPA regulation, we realize tying the deadlines to the effective date of a state's regulations is clearer for state regulators as well as owners and operators.

Several commenters were concerned with how release detection requirements were expressed in 40 CFR part 281. One commenter was concerned that the term monthly in § 281.33(c)(1) is not as stringent as the 40 CFR part 280 requirement of completing release detection every 30 days. This commenter wanted EPA to amend the 40 CFR part 281 language so it matches the 30 day wording in 40 CFR part 280. EPA is maintaining the term monthly in 40 CFR part 281. EPA agrees there is variation between the 30 day time frame in 40 CFR part 280 and monthly in 40 CFR part 281. For states receiving SPA, the difference should result in a variation of only a few days, and therefore need not be changed. It is EPA's position that release detection monitoring should be conducted on a consistent and frequently occurring basis. EPA chose the 30 day period in 40 CFR part 280 to represent an average calendar month.

In this final SPA regulation, EPA is requiring states, which wish to receive SPA, no longer allow installation of non-secondarily contained hazardous substance UST systems. This is consistent with EPA's change in § 280.42(e); an equivalent and specific change in the final SPA regulation is the only way to ensure states adopt it. For consistency with changes in this final UST regulation and to ensure states wishing to receive SPA adopt this change, in § 281.34(a)(1), EPA is adding “. . . interstitial space may have been compromised . . .” to suspected release conditions.

One commenter expressed concern with the release detection language in § 280.41(b)(2)(ii), which indicates EPA intends to exempt from release detection requirements suction piping that meets the condition of paragraphs (b)(1)(ii)(A) through (E). However § 281.33(d)(3) indicates that in order to be considered no less stringent, states must require new or replaced piping use interstitial monitoring with secondary containment. EPA agrees with the commenter that we need to modify § 281.33(d)(3) to incorporate the concepts of § 280.41(b)(2)(ii). In the final SPA regulation, EPA is modifying § 281.33(d)(3) to indicate that the requirement is applicable to all pressurized piping and suction piping that does not meet standards in § 281.33(d)(2)(ii).

One commenter said that it may be very difficult to achieve compliance with release detection requirements for emergency power generator USTs within one year. This commenter suggested that EPA reword § 281.33(b)(3) to give owners at least three years from the effective date of the final SPA regulation. EPA agrees with the commenter and is extending the date of compliance for this requirement to three years as we are in this final UST regulation; this approach corresponds with EPA's goal of aligning dates of compliance to the extent possible.

#### *Addressing SPA Revision Process*

EPA is adding a requirement for approved states to submit a revised application within three years of final SPA regulation changes that require a program revision under § 281.51. Approved states are required to revise their programs and submit revised applications whenever the federal program changes or EPA's Administrator requests a revised application based on changes to a state's program. Given these significant changes, EPA thinks it is necessary to develop a time frame which will ensure approved states meet final SPA

regulation changes in a reasonable time. EPA's language in § 281.51 is intended only to require a state program revision within three years if EPA makes changes that necessitate state program changes. For instance, these changes to subpart C—Criteria for No Less Stringent will require state program revision.

Commenters disagreed on the appropriate time frame for states to submit their SPA applications. Some said three years was appropriate, while others preferred a different time frame. EPA maintains that three years is adequate for most states to re-apply for SPA. One commenter expressed concern about what will happen to a state's SPA status if it does not re-apply within the required time frame. While most states will be able to meet the three-year deadline for program revision, EPA is aware that some states may need additional time. EPA will work with states which have not revised their programs within three years. EPA will ask those states to demonstrate their level of effort, show progress to date, and provide dates when they will achieve major milestones for revising their programs and submitting revised applications. EPA will consider these factors before initiating state program approval withdrawal. One commenter was concerned about the cost to states of revising and reapplying for SPA. It is important for states to reapply for SPA to ensure they make appropriate changes to their programs.

#### *Additional Changes to SPA Regulation*

EPA is making these additional changes; they are not a direct result of these 40 CFR part 280 changes. Rather, the majority are corrections to the 1988 SPA regulation.

- § 281.10—change subpart to part
- §§ 281.11(c), 281.20(d), 281.21(a)(2), 281.23, and formerly § 281.51—eliminate interim approval
- § 281.12(a)(2)—change Indian lands to Indian country
- § 281.32(e)—eliminate requirement to maintain upgrade records
- Formerly § 281.38—eliminate reserved section for financial responsibility for USTs containing hazardous substances
- Move § 281.39 to § 281.38—Lender Liability
- §§ 281.50(e) and 281.51(c)(1)—clarify how to provide public notice to attract statewide attention
- § 281.61—move § 281.60(b) to § 281.61(b)(2)

The 1988 SPA regulation incorrectly uses the term subpart in § 280.10 and, therefore, EPA is correctly changing this to part. EPA has been using the term

Indian country instead of Indian lands for years. We are now incorporating this term in this final SPA regulation; this does not alter the meaning. EPA is removing the reserved financial responsibility for USTs containing hazardous substances section (formerly § 281.38); moving the lender liability section from § 281.39 to § 281.38; and including the new operator training section in § 281.39. Because operator training needs to be in subpart C, which has no section numbers available, this eliminates the need to renumber subpart D. Also, the reserved financial responsibility for hazardous substances section is unnecessary since there is no corresponding requirement in 40 CFR part 280.

EPA is deleting the interim SPA approval language in §§ 281.11(c) and 281.51. In more than 20 years of the UST program, no state applied for interim approval; it is more beneficial to receive full approval all at once, rather than in steps. Also, because 40 states, including the District of Columbia and Puerto Rico, have SPA as of 2014, EPA thinks interim SPA approval is unnecessary at this time.

EPA is eliminating the requirement to maintain upgrade records for the operational life of an UST facility. This requirement in § 281.32(e) of the 1988 SPA regulation does not exist in 40 CFR part 280. In addition, except for airport hydrant systems and field-constructed tanks, EPA is no longer allowing upgrades.

EPA is clarifying how to provide public notice to attract statewide attention in §§ 281.50(e) and 281.51(c)(1). In today's digital age, it is unnecessary to require publication in a state's newspapers. Each state can determine the most appropriate methods for public notice and statewide attention.

EPA is also moving § 281.60(b) to § 281.61(b). This paragraph explains the procedure EPA will follow to withdraw approval after the conclusion of the proceeding to withdraw approval. EPA thinks this paragraph is better suited for § 281.61, which explains the procedures for withdrawing approval, as opposed to § 281.60, which explains the criteria for withdrawal.

#### **VI. Overview of Estimated Costs and Benefits**

EPA prepared an analysis of the potential incremental costs and benefits associated with this final UST regulation. This analysis is contained in the regulatory impact analysis document titled *Assessment of the Potential Costs, Benefits, and Other Impacts of the Final Revisions to EPA's*

*Underground Storage Tank Regulations*, which is available in the docket for this action. The RIA estimated regulatory implementation and compliance costs, as well as benefits for the three regulatory options described in section IV, subsection F. In the RIA, EPA estimated regulatory compliance costs on an annualized basis for the three options: \$160 million (Selected Option), \$290 million (Option 1), and \$70 million (Option 2). Separately, the analysis assessed the potential benefits of the final UST regulation. As discussed in the RIA, a substantial portion of the beneficial impacts associated with the final UST regulation are avoided cleanup costs as a result of preventing releases and reducing the severity of releases. This action is expected to have annual cost savings related to avoided costs of \$310 million (range: \$120–\$530 million) per year under the Selected Option, \$450 million (range: \$210–\$670 million) per year under Option 1, and \$230 million (range: \$45–\$420 million) per year under Option 2. Due to data and resource constraints, EPA was unable to quantify some of the final UST regulation's benefits, including avoidance of human health risks, ecological benefits, and mitigation of acute exposure events and large-scale releases, such as those from airport hydrant systems and field-constructed tanks. EPA was also unable to place a monetary value on the groundwater protected by the final UST regulation, but estimates that this final UST regulation could potentially protect 50 billion to 240 billion gallons of groundwater each year.

## VII. Statutory and Executive Orders

### A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is an economically significant regulatory action because it is likely to have an annual effect on the economy of \$100 million or more. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and EO 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations are documented in the docket for this action. Also, as part of EO 13563, EPA encourages owners and operators to maintain records electronically which simplifies compliance and

recordkeeping by using 21st century technology tools.<sup>121</sup>

### B. Paperwork Reduction Act

The information collection requirements (ICR) in this rule will be submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them.

The proposed rule ICR was submitted to OMB on 11/18/2011 under OMB number 2050–0068, ICR number 1360.11. On 1/30/2012 OMB released a Notice of Action of comment filed on proposed rule and continue. They also issued this comment: “Terms of the previous clearance remain in effect. OMB is withholding approval at this time. Prior to publication of the final rule, the agency should provide a summary of any comments related to the information collection and their response, including any changes made to the ICR as a result of comments. In addition, the agency must enter the correct burden estimates. This action has no effect on any current approvals.” The final rule ICR will be submitted to OMB under a new ICR OMB control number.

This action contains mandatory information collection requirements. The labor burden and associated costs for these requirements are estimated in the ICR supporting statement for this final action. The supporting statement identifies and estimates the burden for each of the changes to the regulation that include recordkeeping or reporting requirements. Changes include: adding secondary containment requirements for new and replaced tanks and piping; adding operator training requirements; adding periodic operation and maintenance requirements for UST systems; regulating certain UST systems deferred in the 1988 UST regulation; adding new release prevention and detection technologies; and updating state program approval requirements to incorporate these new changes.

Based on the same data and cost calculations applied in the RIA for this action, but using the burden estimations for ICRs, the ICR supporting statement estimates an average annual labor hour burden of 344,000 hours and \$12 million for the final UST regulation. One time capital and hourly costs are included in these estimates based on a three year annualization period. Burden

is defined at 5 CFR 1320.3(b). The total universe of respondents for this ICR is comprised of 211,154 facilities and 56 states and territories. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9. When this ICR is approved by OMB, the agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

### C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any regulation subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the regulation will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this final UST regulation on small entities, a small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this final rule are small businesses and small governmental jurisdictions. We have determined that less than 1 percent of potentially affected small firms in the retail motor fuel sector (NAICS 447) will experience an impact over 1 percent of revenues, but less than 3 percent of revenues. No small firms have impacts above 3 percent of revenues. In addition, we estimate that no small governmental jurisdictions will be impacted at 1 percent or 3 percent of revenues. This certification is based on the small entities analysis contained in the RIA for this final rule.

<sup>121</sup> Executive Order 13563, *Improving Regulation and Regulatory Review*, Section 3, <http://www.gpo.gov/fdsys/pkg/FR-2011-01-21/pdf/2011-1385.pdf>.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless sought to reduce the impact of this rule on small entities. EPA conducted extensive outreach to determine how to change the 1988 UST regulation. EPA worked with representatives of owners and operators and reached out specifically to small businesses. In addition, EPA limited changes that would have required major retrofits to UST systems, since this would place a high financial burden on small businesses. Finally, EPA provided numerous options for compliance in order to provide as much flexibility as possible for small entities. EPA also aligned compliance dates to facilitate owner and operator compliance.

#### *D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. This rule contains a federal mandate that may result in expenditures of \$100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Accordingly, EPA prepared under section 202 of the UMRA a written statement which is summarized below.

As estimated in the RIA, on an annualized basis, the total estimated regulatory compliance costs for the three options in this final action are \$160 million (Selected Option), \$290 million (Option 1), and \$70 million (Option 2). Of this amount, annualized costs to state and local governments total \$6.8 million under the Selected Option, \$14 million under Option 1, and \$3.6 million under Option 2. These costs consist of estimated regulatory compliance costs for state and local governments that currently own or operate UST systems and annualized costs of \$120,000 for states to implement the final UST regulation. EPA estimates total annualized costs to owners and operators of tribally-owned UST systems are \$0.67 million under the Selected Option. The estimated annualized cost to the private sector is approximately \$130 million under the Selected Option, \$270 million under Option 1, and \$67 million under Option 2. While this final UST regulation may result in expenditures of \$100 million or more for the private sector, thereby triggering section 202 of the UMRA, this final UST regulation is not subject to the requirements of section 204 of UMRA because EPA does not think state, local,

and tribal governments will incur aggregate costs of over \$100 million per year.

Consistent with section 205, EPA identified and considered a reasonable number of regulatory alternatives. This final UST regulation identifies the regulatory options EPA considered. The RIA estimates the annual cost across the three considered options may range between \$70 million and \$290 million. Section 205 of the UMRA requires federal agencies to select the least costly or most cost-effective regulatory alternative unless EPA publishes with the final regulation an explanation of why such alternative was not adopted. As discussed earlier in the preamble, EPA considered and evaluated variations of a subset of the regulatory requirements using two alternative options (Options 1 and 2). Despite Option 2's lower costs, EPA chose the Selected Option because it provides for greater protection of human health and the environment and better addresses stakeholder concerns.

This rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

#### *E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on states, the relationship between the federal government and states, or the distribution of power and responsibilities among various levels of government, as specified in EO 13132. Under this final action, total costs to all affected states and local governments (including direct compliance costs, notification costs, and state program costs) are approximately \$9 million. This is not considered to be a substantial compliance cost under federalism requirements. Thus, Executive Order 13132 does not apply to this action.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed action from State and local officials.

#### *F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments*

Subject to Executive Order 13175 (65 FR 67249, November 9, 2000) EPA may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the money

necessary to pay the direct compliance costs incurred by tribal governments, or EPA consults with tribal officials early in the process of developing the proposed regulation and develops a tribal summary impact statement.

EPA has concluded that this action will have tribal implications to the extent that tribally-owned entities with UST systems in Indian country will be affected. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law. EPA estimated total annualized costs for tribally-owned UST systems in Indian country to be \$0.67 million.

EPA consulted with tribal officials early in the process of developing this regulation to permit them to have meaningful and timely input to its development. EPA consulted with tribes on possible changes to the UST regulation shortly after the passage of the Energy Policy Act of 2005. The Energy Policy Act directed EPA to coordinate with tribes in developing and implementing an UST program strategy in Indian country which would supplement the existing approach. EPA and tribes worked collaboratively to develop a tribal strategy.

There are certain key provisions of the Energy Policy Act that apply to states receiving federal Subtitle I money, but do not apply in Indian country. Nonetheless, EPA's goal in this final UST regulation is to establish in Indian country federal requirements similar to the Energy Policy Act provisions; this is an important step in achieving more consistent program results in release prevention. Both EPA and tribes recognize the importance of ensuring parity in program implementation between states and in Indian country.

In addition to early consultation with tribes, EPA also reached out to tribes as we started the official rulemaking process and while developing the 2011 proposed UST regulation. EPA sent letters to leaders of over 500 tribes, as well as to tribal regulatory staff, inviting their participation in developing the 2011 proposed UST regulation. EPA also held conference calls for tribes to provide input. EPA heard from both tribal officials who work as regulators as well as representatives of owners and operators of UST systems in Indian country. The tribal regulators raised concerns about ensuring parity of environmental protection between states and Indian country.

EPA determined that this final UST regulation is needed to ensure parity between UST systems in states and in Indian country. This final UST regulation is also needed to ensure



equipment is both installed and working properly, which will protect the environment from potential releases.

As required by section 7(a), EPA's Tribal Consultation Official certified that the requirements of the Executive Order have been met in a meaningful and timely manner. EPA included a copy of the certification in the docket for this action.

#### *G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks*

This action is not subject to EO 13045 (62 FR 19885, April 23, 1997) because the Agency does not think the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. EPA's risk assessment for this action examines potential impacts to groundwater and subsequent chemical transport, exposure, and risk. While the risk assessment did not specifically measure exposure to children, the general exposure scenarios reflect four exposure pathways that have the most significant potential for human health impacts. They are:

- Ingestion of chemicals in groundwater that have migrated from the source area to residential drinking water wells;
- Inhalation of volatile chemicals when showering with contaminated groundwater;
- Dermal contact with chemicals while bathing or showering with contaminated groundwater; and
- Inhalation of vapors that may migrate upward from contaminated groundwater into overlying buildings.

Adults and children can potentially be exposed through all four exposure pathways considered. For adults, inhalation of vapors while showering is the most significant exposure pathway; for children, ingestion is the most significant pathway, because they are assumed to take baths and are, therefore, not exposed via shower vapor inhalation. As a result of the longer exposure from showering, adults are more sensitive receptors for cancer effects compared to children, particularly those under age 5 who are assumed to take more baths and fewer showers.<sup>122</sup>

While the screening level risk assessment is limited in that it only examines benzene impacts, the final UST regulation will likely reduce other contaminant exposures to children in a

similar pattern and will not create significant adverse impacts on children's health.

The screening level population analysis performed to examine EO 12898 shows that children under 18 years and children under 5 years of age are slightly less likely to be found in the vicinity of UST facilities. This suggests that the impacts of this action will not have a disproportionate impact on children's health. Moreover, because all regulatory options in this action will increase regulatory stringency and reduce the number and size of releases, EPA does not expect this action to have any disproportionate adverse impact on children.

#### *H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use*

This action is not a significant energy action as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The following summarizes EPA's assessment of the energy impacts this final UST regulation will have on energy supply, distribution, and use.

This final UST regulation consists of additional regulatory requirements that apply to the owners and operators of underground storage tanks. To the extent that the final UST regulation affects the motor fuel sector, it does so at the retail motor fuel sales level, rather than the level of refineries or distributors, who supply the retail stations with motor fuel. Therefore, we do not expect this final UST regulation to have a significant adverse impact on energy supply or distribution.

The additional regulatory requirements contained in this final UST regulation may increase compliance costs for owners and operators of retail motor fuel stations. If owners and operators of retail motor fuel stations affected by the final UST regulation can pass through their increased compliance costs, energy use may be affected via higher energy prices caused by the final UST regulation. However, we do not expect a significant change in retail gasoline prices to result from this final UST regulation for the following reasons:

- Economic analyses of retail fuel prices revealed that demand for gasoline is highly sensitive to price (elastic) within localized geographic areas—as a result, if one motor fuel retailer in an area passes through increases in compliance costs by increasing gasoline prices, while another does not, the one

with higher prices is at a competitive disadvantage; and

- Retail motor fuel stations often have associated stores or services, such as car washes, repair operations, and convenience outlets, on which they can more successfully pass through increases in compliance costs.

Furthermore, when considered in the context of total fuel consumption in the United States, this final UST regulation will represent only a very small fraction of motor fuel prices, even if fully passed through to consumers. According to the Bureau of Transportation Statistics, the United States consumed approximately 169 billion gallons of motor fuel (including gasoline and diesel) in 2011 at an average price of \$3.73.<sup>123</sup> This implies that consumers spent \$629 billion in 2012 on motor fuel. The overall cost of the final UST regulation is approximately \$160 million, less than 0.1 percent of the amount spent by end users on motor fuel in 2012. In comparison, an increase of 1 cent in the average price of motor fuel in 2012 would have increased the total cost to consumers by approximately \$1.7 billion. Given these circumstances, this final UST regulation should not measurably impact retail motor fuel prices. As a result, EPA does not expect this final UST regulation to have a significant adverse impact on energy prices or use.

#### *I. National Technology Transfer and Advancement Act*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical

<sup>123</sup> 2011 is the latest year data available from Bureau of Transportation Statistics for gallons of motor fuel consumed, as reported by: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics. Accessed at: [http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national\\_transportation\\_statistics/html/table\\_04\\_09.html](http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_04_09.html). The 2012 prices per gallon for all grades of retail motor gasoline and No. 2 diesel fuel (all concentrations of sulfur) were \$3.63 and \$3.97, respectively, as reported by: U.S. Energy Information Administration. Short-Term Energy Outlook—Real and Nominal Energy Prices for 2012. Accessed at: <http://www.eia.gov/forecasts/steo/realprices/>. We weight these prices according to prime supplier sales volumes in 2012 published by the Energy Information Administration, which summed to 347,234.5 thousands of gallons per day for gasoline and 143,270.6 thousands of gallons per day for all grades of diesel fuel (U.S. Energy Information Administration. Petroleum & Other Liquids. Prime Supplier Sales Volumes. Accessed at: [http://www.eia.gov/dnav/pet/pet\\_cons\\_prim\\_dcu\\_nus\\_a.htm](http://www.eia.gov/dnav/pet/pet_cons_prim_dcu_nus_a.htm).

<sup>122</sup> United States Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, *Toxicological Profile For Polycyclic Aromatic Hydrocarbons*, August 1995.

standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when EPA decides not to use available and applicable voluntary consensus standards.

This action uses technical standards. EPA has decided to use voluntary consensus standards, called codes of practice, described in section E-2. These codes of practice meet the objectives of this action by establishing criteria for the design, construction, and maintenance of underground storage tanks.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order 12898 (59 FR 7629, Feb. 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

To inform us about the socioeconomic characteristics of communities potentially affected by this final UST regulation, EPA conducted a screening analysis under the 2011 proposed UST regulation to examine whether there is a statistically significant disparity between socioeconomic characteristics of populations located near UST facilities and those that are not.<sup>124</sup> As discussed in the RIA, the results indicate that minority and low-income populations are slightly more likely to

be located near UST facilities. An environmental justice analysis would then require an assessment of whether there would be disproportionate and adverse impacts on these populations. However, because all regulatory options considered in this final UST regulation would increase regulatory stringency and reduce the number and size of releases, EPA does not anticipate the final UST regulation will have any disproportionately high and adverse human health or environmental effects on these minority or low-income communities or any community.

*K. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a “major rule” as defined by 5 U.S.C. 804(2). This rule is effective September 14, 2015.

**List of Subjects**

*40 CFR Part 280*

Environmental protection, Administrative practice and procedures, Confidential business information, Groundwater, Hazardous materials, Petroleum, Reporting and recordkeeping requirements, Underground storage tanks, Water pollution control, Water supply.

*40 CFR Part 281*

Environmental protection, Administrative practice and procedures, Hazardous substances, Petroleum, State program approval, Underground storage tanks.

Dated: June 19, 2015.

**Gina McCarthy**,  
*Administrator.*

For the reasons set out in the preamble, parts 280 and 281 of title 40, chapter I of the Code of Federal Regulations are amended as follows:

- 1. Revise part 280 to read as follows:

**PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)**

**Subpart A—Program Scope and Installation Requirements for Partially Excluded UST Systems**

Sec.

280.10 Applicability.

280.11 Installation requirements for partially excluded UST systems.

280.12 Definitions.

**Subpart B—UST Systems: Design, Construction, Installation and Notification**

280.20 Performance standards for new UST systems.

280.21 Upgrading of existing UST systems.

280.22 Notification requirements.

**Subpart C—General Operating Requirements**

280.30 Spill and overflow control.

280.31 Operation and maintenance of corrosion protection.

280.32 Compatibility.

280.33 Repairs allowed.

280.34 Reporting and recordkeeping.

280.35 Periodic testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping and periodic inspection of overflow prevention equipment.

280.36 Periodic operation and maintenance walkthrough inspections.

**Subpart D—Release Detection**

280.40 General requirements for all UST systems.

280.41 Requirements for petroleum UST systems.

280.42 Requirements for hazardous substance UST systems.

280.43 Methods of release detection for tanks.

280.44 Methods of release detection for piping.

280.45 Release detection recordkeeping.

**Subpart E—Release Reporting, Investigation, and Confirmation**

280.50 Reporting of suspected releases.

280.51 Investigation due to off-site impacts.

280.52 Release investigation and confirmation steps.

280.53 Reporting and cleanup of spills and overfills.

**Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances**

280.60 General.

280.61 Initial response.

280.62 Initial abatement measures and site check.

280.63 Initial site characterization.

280.64 Free product removal.

280.65 Investigations for soil and groundwater cleanup.

280.66 Corrective action plan.

280.67 Public participation.

<sup>124</sup> Note that the affected populations identified in the screening analysis summarized here are simply defined by specific demographics surrounding UST locations. These affected populations are not necessarily equivalent to communities that others have specifically identified as environmental justice communities.

**Subpart G—Out-of-Service UST Systems and Closure**

- 280.70 Temporary closure.  
 280.71 Permanent closure and changes-in-service.  
 280.72 Assessing the site at closure or change-in-service.  
 280.73 Applicability to previously closed UST systems.  
 280.74 Closure records.

**Subpart H—Financial Responsibility**

- 280.90 Applicability.  
 280.91 Compliance dates.  
 280.92 Definition of terms.  
 280.93 Amount and scope of required financial responsibility.  
 280.94 Allowable mechanisms and combinations of mechanisms.  
 280.95 Financial test of self-insurance.  
 280.96 Guarantee.  
 280.97 Insurance and risk retention group coverage.  
 280.98 Surety bond.  
 280.99 Letter of credit.  
 280.100 Use of state-required mechanism.  
 280.101 State fund or other state assurance.  
 280.102 Trust fund.  
 280.103 Standby trust fund.  
 280.104 Local government bond rating test.  
 280.105 Local government financial test.  
 280.106 Local government guarantee.  
 280.107 Local government fund.  
 280.108 Substitution of financial assurance mechanisms by owner or operator.  
 280.109 Cancellation or nonrenewal by a provider of financial assurance.  
 280.110 Reporting by owner or operator.  
 280.111 Recordkeeping.  
 280.112 Drawing on financial assurance mechanisms.  
 280.113 Release from the requirements.  
 280.114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.  
 280.115 Replenishment of guarantees, letters of credit, or surety bonds.  
 280.116 Suspension of enforcement.  
 [Reserved]

**Subpart I—Lender Liability**

- 280.200 Definitions.  
 280.210 Participation in management.  
 280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.  
 280.230 Operating an underground storage tank or underground storage tank system.

**Subpart J—Operator Training**

- 280.240 General requirement for all UST systems.  
 280.241 Designation of Class A, B, and C operators.  
 280.242 Requirements for operator training.  
 280.243 Timing of operator training.  
 280.244 Retraining.  
 280.245 Documentation.

**Subpart K—UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems**

- 280.250 Definitions.

- 280.251 General requirements.  
 280.252 Additions, exceptions, and alternatives for UST systems with field-constructed tanks and airport hydrant systems.

Appendix I to Part 280—Notification for Underground Storage Tanks (Form)

Appendix II to Part 280—Notification of Ownership Change for Underground Storage Tanks (Form)

Appendix III to Part 280—Statement for Shipping Tickets and Invoices

**Authority:** 42 U.S.C. 6912, 6991, 6991(a), 6991(b), 6991(c), 6991(d), 6991(e), 6991(f), 6991(g), 6991(h), 6991(i).

**Subpart A—Program Scope and Installation Requirements for Partially Excluded UST Systems****§ 280.10 Applicability.**

(a) The requirements of this part apply to all owners and operators of an UST system as defined in § 280.12 except as otherwise provided in paragraphs (b) and (c) of this section.

(1) *Previously deferred UST systems.* Airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and UST systems that store fuel solely for use by emergency power generators must meet the requirements of this part as follows:

(i) Airport hydrant fuel distribution systems and UST systems with field-constructed tanks must meet the requirements in subpart K of this part.

(ii) UST systems that store fuel solely for use by emergency power generators installed on or before October 13, 2015 must meet the subpart D requirements on or before October 13, 2018.

(iii) UST systems that store fuel solely for use by emergency power generators installed after October 13, 2015 must meet all applicable requirements of this part at installation.

(2) Any UST system listed in paragraph (c) of this section must meet the requirements of § 280.11.

(b) *Exclusions.* The following UST systems are excluded from the requirements of this part:

(1) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.

(3) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(4) Any UST system whose capacity is 110 gallons or less.

(5) Any UST system that contains a *de minimis* concentration of regulated substances.

(6) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(c) *Partial Exclusions.* Subparts B, C, D, E, G, J, and K of this part do not apply to:

(1) Wastewater treatment tank systems not covered under paragraph (b)(2) of this section;

(2) Aboveground storage tanks associated with:

(i) Airport hydrant fuel distribution systems regulated under subpart K of this part; and

(ii) UST systems with field-constructed tanks regulated under subpart K of this part;

(3) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C. 2011 and following); and

(4) Any UST system that is part of an emergency generator system at nuclear power generation facilities licensed by the Nuclear Regulatory Commission and subject to Nuclear Regulatory Commission requirements regarding design and quality criteria, including but not limited to 10 CFR part 50.

**§ 280.11 Installation requirements for partially excluded UST systems.**

(a) Owners and operators must install an UST system listed in § 280.10(c)(1), (3), or (4) storing regulated substances (whether of single or double wall construction) that meets the following requirements:

(1) Will prevent releases due to corrosion or structural failure for the operational life of the UST system;

(2) Is cathodically protected against corrosion, constructed of non-corrodible material, steel clad with a non-corrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and

(3) Is constructed or lined with material that is compatible with the stored substance.

(b) Notwithstanding paragraph (a) of this section, an UST system without corrosion protection may be installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators must maintain records that demonstrate compliance with the requirements of this paragraph for the remaining life of the tank.

**Note to paragraphs (a) and (b).** The following codes of practice may be used as guidance for complying with this section:

(A) NACE International Standard Practice SP 0285, "External Corrosion Control of

Underground Storage Tank Systems by Cathodic Protection”;

(B) NACE International Standard Practice SP 0169, “Control of External Corrosion on Underground or Submerged Metallic Piping Systems”;

(C) American Petroleum Institute Recommended Practice 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”; or

(D) Steel Tank Institute Recommended Practice R892, “Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Storage and Dispensing Systems”.

#### § 280.12 Definitions.

*Aboveground release* means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.

*Ancillary equipment* means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

*Belowground release* means any release to the subsurface of the land and to groundwater. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.

*Beneath the surface of the ground* means beneath the ground surface or otherwise covered with earthen materials.

*Cathodic protection* is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

*Cathodic protection tester* means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

*CERCLA* means the Comprehensive Environmental Response,

Compensation, and Liability Act of 1980, as amended.

*Class A operator* means the individual who has primary responsibility to operate and maintain the UST system in accordance with applicable requirements established by the implementing agency. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.

*Class B operator* means the individual who has day-to-day responsibility for implementing applicable regulatory requirements established by the implementing agency. The Class B operator typically implements in-field aspects of operation, maintenance, and associated recordkeeping for the UST system.

*Class C operator* means the individual responsible for initially addressing emergencies presented by a spill or release from an UST system. The Class C operator typically controls or monitors the dispensing or sale of regulated substances.

*Compatible* means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

*Connected piping* means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

*Consumptive use* with respect to heating oil means consumed on the premises.

*Containment Sump* means a liquid-tight container that protects the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of tank (tank top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the piping run (transition or intermediate sump).

*Corrosion expert* means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to

engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

*Dielectric material* means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils. Dielectric bushings are used to electrically isolate portions of the UST system (e.g., tank from piping).

*Dispenser* means equipment located aboveground that dispenses regulated substances from the UST system.

*Dispenser system* means the dispenser and the equipment necessary to connect the dispenser to the underground storage tank system.

*Electrical equipment* means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

*Excavation zone* means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.

*Existing tank system* means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:

(1) The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,

(2)(i) Either a continuous on-site physical construction or installation program has begun; or,

(ii) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction at the site or installation of the tank system to be completed within a reasonable time.

*Farm tank* is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. *Farm* includes fish hatcheries, rangeland and nurseries with growing operations.

*Flow-through process tank* is a tank that forms an integral part of a

production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.

*Free product* refers to a regulated substance that is present as a nonaqueous phase liquid (e.g., liquid not dissolved in water).

*Gathering lines* means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.

*Hazardous substance UST system* means an underground storage tank system that contains a hazardous substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

*Heating oil* means petroleum that is No. 1, No. 2, No. 4—light, No. 4—heavy, No. 5—light, No. 5—heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.

*Hydraulic lift tank* means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

*Implementing agency* means EPA, or, in the case of a state with a program approved under section 9004 (or pursuant to a memorandum of agreement with EPA), the designated state or local agency responsible for carrying out an approved UST program.

*Liquid trap* means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

*Maintenance* means the normal operational upkeep to prevent an underground storage tank system from releasing product.

*Motor fuel* means a complex blend of hydrocarbons typically used in the operation of a motor engine, such as motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any blend containing one or more of these substances (for example: motor gasoline blended with alcohol).

*New tank system* means a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988. (See also *Existing Tank System*.)

*Noncommercial purposes* with respect to motor fuel means not for resale.

*On the premises where stored* with respect to heating oil means UST systems located on the same property where the stored heating oil is used.

*Operational life* refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed under subpart G.

*Operator* means any person in control of, or having responsibility for, the daily operation of the UST system.

*Overfill release* is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

*Owner* means:

(1) In the case of an UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and

(2) In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use.

*Person* means an individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. Person also includes a consortium, a joint venture, a commercial entity, and the United States Government.

*Petroleum UST system* means an underground storage tank system that contains petroleum or a mixture of petroleum with *de minimis* quantities of other regulated substances. Such systems include those containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

*Pipe* or *Piping* means a hollow cylinder or tubular conduit that is constructed of non-earthen materials.

*Pipeline facilities (including gathering lines)* are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

*Regulated substance means:*

(1) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C); and

(2) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). The term regulated substance includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

*Release* means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into groundwater, surface water or subsurface soils.

*Release detection* means determining whether a release of a regulated substance has occurred from the UST system into the environment or a leak has occurred into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

*Repair* means to restore to proper operating condition a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component that has caused a release of product from the UST system or has failed to function properly.

*Replaced means:*

(1) For a tank—to remove a tank and install another tank.

(2) For piping—to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.

*Residential tank* is a tank located on property used primarily for dwelling purposes.

*SARA* means the Superfund Amendments and Reauthorization Act of 1986.

*Secondary containment* or *Secondarily contained* means a release prevention and release detection system for a tank or piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring of piping.

*Septic tank* is a water-tight covered receptacle designed to receive or process, through liquid separation or

biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

*Storm water or wastewater collection system* means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

*Surface impoundment* is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.

*Tank* is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.

*Training program* means any program that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator through testing, practical demonstration, or another approach acceptable to the implementing agency regarding requirements for UST systems that meet the requirements of subpart J of this part.

*Under-dispenser containment* or *UDC* means containment underneath a dispenser system designed to prevent leaks from the dispenser and piping within or above the UDC from reaching soil or groundwater.

*Underground area* means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.

*Underground release* means any belowground release.

*Underground storage tank* or *UST* means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(1) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(2) Tank used for storing heating oil for consumptive use on the premises where stored;

(3) Septic tank;

(4) Pipeline facility (including gathering lines):

(i) Which is regulated under 49 U.S.C. chapter 601; or

(ii) Which is an intrastate pipeline facility regulated under state laws as provided in 49 U.S.C. chapter 601, and which is determined by the Secretary of Transportation to be connected to a pipeline, or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline;

(5) Surface impoundment, pit, pond, or lagoon;

(6) Storm water or wastewater collection system;

(7) Flow-through process tank;

(8) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(9) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

*Note to the definition of Underground storage tank or UST.* The term *underground storage tank* or *UST* does not include any pipes connected to any tank which is described in paragraphs (1) through (9) of this definition.

*Upgrade* means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.

*UST system* or *Tank system* means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.

*Wastewater treatment tank* means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

## Subpart B—UST Systems: Design, Construction, Installation and Notification

### § 280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements. In addition, except for suction piping that meets the requirements of § 280.41(b)(1)(ii)(A) through (E), tanks and piping installed

or replaced after April 11, 2016 must be secondarily contained and use interstitial monitoring in accordance with § 280.43(g). Secondary containment must be able to contain regulated substances leaked from the primary containment until they are detected and removed and prevent the release of regulated substances to the environment at any time during the operational life of the UST system. For cases where the piping is considered to be replaced, the entire piping run must be secondarily contained.

(a) *Tanks.* Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

(1) The tank is constructed of fiberglass-reinforced plastic; or

**Note to paragraph (a)(1).** The following codes of practice may be used to comply with paragraph (a)(1) of this section:

(A) Underwriters Laboratories Standard 1316, "Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures"; or

(B) Underwriter's Laboratories of Canada S615, "Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids".

(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or according to guidelines established by the implementing agency; or

**Note to paragraph (a)(2).** The following codes of practice may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute "Specification STI-P3® Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks";

(B) Underwriters Laboratories Standard 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks";

(C) Underwriters Laboratories of Canada S603, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and S603.1, "Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and

Combustible Liquids,” and S631, “Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protection Systems”;

(D) Steel Tank Institute Standard F841, “Standard for Dual Wall Underground Steel Storage Tanks”; or

(E) NACE International Standard Practice SP 0285, “External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection,” and Underwriters Laboratories Standard 58, “Standard for Steel Underground Tanks for Flammable and Combustible Liquids”.

(3) The tank is constructed of steel and clad or jacketed with a non-corrodible material; or

**Note to paragraph (a)(3).** The following codes of practice may be used to comply with paragraph (a)(3) of this section:

(A) Underwriters Laboratories Standard 1746, “External Corrosion Protection Systems for Steel Underground Storage Tanks”;

(B) Steel Tank Institute ACT-100® Specification F894, “Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks”;

(C) Steel Tank Institute ACT-100-U® Specification F961, “Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks”; or

(D) Steel Tank Institute Specification F922, “Steel Tank Institute Specification for Permatank®”.

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (a)(4)(i) of this section for the remaining life of the tank; or

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a)(1) through (4) of this section.

(b) *Piping.* The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below.

(1) The piping is constructed of a non-corrodible material; or

**Note to paragraph (b)(1).** The following codes of practice may be used to comply with paragraph (b)(1) of this section:

(A) Underwriters Laboratories Standard 971, “Nonmetallic Underground Piping for Flammable Liquids”; or

(B) Underwriters Laboratories of Canada Standard S660, “Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids”.

(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; or

**Note to paragraph (b)(2).** The following codes of practice may be used to comply with paragraph (b)(2) of this section:

(A) American Petroleum Institute Recommended Practice 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”;

(B) Underwriters Laboratories Subject 971A, “Outline of Investigation for Metallic Underground Fuel Pipe”;

(C) Steel Tank Institute Recommended Practice R892, “Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Storage and Dispensing Systems”;

(D) NACE International Standard Practice SP 0169, “Control of External Corrosion on Underground or Submerged Metallic Piping Systems”; or

(E) NACE International Standard Practice SP 0285, “External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection”.

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b)(1) through (3) of this section.

(c) *Spill and overfill prevention equipment.* (1) Except as provided in

paragraphs (c)(2) and (3) of this section, to prevent spilling and overflowing associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow 30 minutes prior to overflowing, alert the transfer operator with a high level alarm one minute before overflowing, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overflowing.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1)(i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overfill prevention is installed or replaced after October 13, 2015.

(4) Spill and overfill prevention equipment must be periodically tested or inspected in accordance with § 280.35.

(d) *Installation.* The UST system must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer’s instructions.

**Note to paragraph (d).** Tank and piping system installation practices and procedures described in the following codes of practice may be used to comply with the requirements of paragraph (d) of this section:

(A) American Petroleum Institute Publication 1615, “Installation of Underground Petroleum Storage System”;

(B) Petroleum Equipment Institute Publication RP100, “Recommended Practices for Installation of Underground Liquid Storage Systems”; or

(C) National Fire Protection Association Standard 30, “Flammable and Combustible

Liquids Code” and Standard 30A, “Code for Motor Fuel Dispensing Facilities and Repair Garages”.

(e) *Certification of installation.* All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with § 280.22.

(1) The installer has been certified by the tank and piping manufacturers; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or

(4) The installation has been inspected and approved by the implementing agency; or

(5) All work listed in the manufacturer’s installation checklists has been completed; or

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

(f) *Dispenser systems.* Each UST system must be equipped with under-dispenser containment for any new dispenser system installed after April 11, 2016.

(1) A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an UST facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are underneath the dispenser and connect the dispenser to the underground piping.

(2) Under-dispenser containment must be liquid-tight on its sides, bottom, and at any penetrations. Under-dispenser containment must allow for visual inspection and access to the components in the containment system or be periodically monitored for leaks from the dispenser system.

#### § 280.21 Upgrading of existing UST systems.

Owners and operators must permanently close (in accordance with subpart G of this part) any UST system that does not meet the new UST system performance standards in § 280.20 or

has not been upgraded in accordance with paragraphs (b) through (d) of this section. This does not apply to previously deferred UST systems described in subpart K of this part and where an upgrade is determined to be appropriate by the implementing agency.

(a) *Alternatives allowed.* All existing UST systems must comply with one of the following requirements:

(1) New UST system performance standards under § 280.20;

(2) The upgrading requirements in paragraphs (b) through (d) of this section; or

(3) Closure requirements under subpart G of this part, including applicable requirements for corrective action under subpart F of this part.

(b) *Tank upgrading requirements.* Steel tanks must be upgraded to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:

(1) *Interior lining.* Tanks upgraded by internal lining must meet the following:

(i) The lining was installed in accordance with the requirements of § 280.33; and

(ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications. If the internal lining is no longer performing in accordance with original design specifications and cannot be repaired in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory, then the lined tank must be permanently closed in accordance with subpart G of this part.

(2) *Cathodic protection.* Tanks upgraded by cathodic protection must meet the requirements of § 280.20(a)(2)(ii), (iii), and (iv) and the integrity of the tank must have been ensured using one of the following methods:

(i) The tank was internally inspected and assessed to ensure that the tank was structurally sound and free of corrosion holes prior to installing the cathodic protection system; or

(ii) The tank had been installed for less than 10 years and is monitored monthly for releases in accordance with § 280.43(d) through (i); or

(iii) The tank had been installed for less than 10 years and was assessed for corrosion holes by conducting two tightness tests that meet the requirements of § 280.43(c). The first tightness test must have been conducted

prior to installing the cathodic protection system. The second tightness test must have been conducted between three and six months following the first operation of the cathodic protection system; or

(iv) The tank was assessed for corrosion holes by a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (b)(2)(i) through (iii) of this section.

(3) *Internal lining combined with cathodic protection.* Tanks upgraded by both internal lining and cathodic protection must meet the following:

(i) The lining was installed in accordance with the requirements of § 280.33; and

(ii) The cathodic protection system meets the requirements of § 280.20(a)(2)(ii), (iii), and (iv).

**Note to paragraph (b).** The following historical codes of practice were listed as options for complying with paragraph (b) of this section:

(A) American Petroleum Institute Publication 1631, “Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks”;

(B) National Leak Prevention Association Standard 631, “Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection”;

(C) National Association of Corrosion Engineers Standard RP-02-85, “Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems”;

(D) American Petroleum Institute Recommended Practice 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”.

**Note to paragraph b(1)(ii).** The following codes of practice may be used to comply with the periodic lining inspection requirement of this section:

(A) American Petroleum Institute Recommended Practice 1631, “Interior Lining and Periodic Inspection of Underground Storage Tanks”;

(B) National Leak Prevention Association Standard 631, Chapter B “Future Internal Inspection Requirements for Lined Tanks”;

or  
(C) Ken Wilcox Associates Recommended Practice, “Recommended Practice for Inspecting Buried Lined Steel Tanks Using a Video Camera”.

(c) *Piping upgrading requirements.* Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and must meet the requirements of § 280.20(b)(2)(ii), (iii), and (iv).



**Note to paragraph (c).** The codes of practice listed in the note following § 280.20(b)(2) may be used to comply with this requirement.

(d) *Spill and overflow prevention equipment.* To prevent spilling and overflowing associated with product transfer to the UST system, all existing UST systems must comply with UST system spill and overflow prevention equipment requirements specified in § 280.20(c).

#### § 280.22 Notification requirements.

(a) After May 8, 1986, an owner must submit notice of a tank system's existence to the implementing agency within 30 days of bringing the underground storage tank system into use. Owners must use the form in appendix I of this part or a state form in accordance with paragraph (c) of this section.

**Note to paragraph (a).** Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the designated state or local agency in accordance with the Hazardous and Solid Waste Amendments of 1984, Public Law 98-616, on a form published by EPA on November 8, 1985 unless notice was given pursuant to section 103(c) of CERCLA. Owners and operators who have not complied with the notification requirements may use portions I through X of the notification form contained in appendix I of this part.

(b) Within 30 days of acquisition, any person who assumes ownership of a regulated underground storage tank system, except as described in paragraph (a) of this section, must submit a notice of the ownership change to the implementing agency, using the form in appendix II of this part or a state form in accordance with paragraph (c) of this section.

(c) In states where state law, regulations, or procedures require owners to use forms that differ from those set forth in appendix I and appendix II of this part to fulfill the requirements of this section, the state forms may be submitted in lieu of the forms set forth in appendix I and appendix II. If a state requires that its form be used in lieu of the form presented in appendix I and appendix II, such form must, at a minimum, collect the information prescribed in appendix I and appendix II.

(d) Owners required to submit notices under paragraph (a) or (b) of this section must provide notices to the appropriate implementing agency for each tank they own. Owners may provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of

operation must file a separate notification form for each separate place of operation.

(e) All owners and operators of new UST systems must certify in the notification form compliance with the following requirements:

(1) Installation of tanks and piping under § 280.20(e);

(2) Cathodic protection of steel tanks and piping under § 280.20(a) and (b);

(3) Financial responsibility under subpart H of this part; and

(4) Release detection under §§ 280.41 and 280.42.

(f) All owners and operators of new UST systems must ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in § 280.20(d).

(g) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank must notify the purchaser of such tank of the owner's notification obligations under paragraph (a) of this section. The statement provided in appendix III of this part, when used on shipping tickets and invoices, may be used to comply with this requirement.

#### Subpart C—General Operating Requirements

##### § 280.30 Spill and overflow control.

(a) Owners and operators must ensure that releases due to spilling or overflowing do not occur. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overflowing and spilling.

**Note to paragraph (a).** The transfer procedures described in National Fire Protection Association Standard 385, "Standard for Tank Vehicles for Flammable and Combustible Liquids" or American Petroleum Institute Recommended Practice 1007, "Loading and Unloading of MC 306/ DOT 406 Cargo Tank Motor Vehicles" may be used to comply with paragraph (a) of this section. Further guidance on spill and overflow prevention appears in American Petroleum Institute Recommended Practice 1621, "Bulk Liquid Stock Control at Retail Outlets".

(b) The owner and operator must report, investigate, and clean up any spills and overfills in accordance with § 280.53.

##### § 280.31 Operation and maintenance of corrosion protection.

All owners and operators of metal UST systems with corrosion protection must comply with the following

requirements to ensure that releases due to corrosion are prevented until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71:

(a) All corrosion protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances and are in contact with the ground.

(b) All UST systems equipped with cathodic protection systems must be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) *Frequency.* All cathodic protection systems must be tested within 6 months of installation and at least every 3 years thereafter or according to another reasonable time frame established by the implementing agency; and

(2) *Inspection criteria.* The criteria that are used to determine that cathodic protection is adequate as required by this section must be in accordance with a code of practice developed by a nationally recognized association.

**Note to paragraph (b).** The following codes of practice may be used to comply with paragraph (b) of this section:

(A) NACE International Test Method TM 0101, "Measurement Techniques Related to Criteria for Cathodic Protection of Underground Storage Tank Systems";

(B) NACE International Test Method TM0497, "Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems";

(C) Steel Tank Institute Recommended Practice R051, "Cathodic Protection Testing Procedures for STI-P3® USTs";

(D) NACE International Standard Practice SP 0285, "External Control of Underground Storage Tank Systems by Cathodic Protection"; or

(E) NACE International Standard Practice SP 0169, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems".

(c) UST systems with impressed current cathodic protection systems must also be inspected every 60 days to ensure the equipment is running properly.

(d) For UST systems using cathodic protection, records of the operation of the cathodic protection must be maintained (in accordance with § 280.34) to demonstrate compliance with the performance standards in this section. These records must provide the following:

(1) The results of the last three inspections required in paragraph (c) of this section; and

(2) The results of testing from the last two inspections required in paragraph (b) of this section.

#### § 280.32 Compatibility.

(a) Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

(b) Owners and operators must notify the implementing agency at least 30 days prior to switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency. In addition, owners and operators with UST systems storing these regulated substances must meet one of the following:

(1) Demonstrate compatibility of the UST system (including the tank, piping, containment sumps, pumping equipment, release detection equipment, spill equipment, and overflow equipment). Owners and operators may demonstrate compatibility of the UST system by using one of the following options:

(i) Certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or

(ii) Equipment or component manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the equipment or component is compatible with, and be from the equipment or component manufacturer; or

(2) Use another option determined by the implementing agency to be no less protective of human health and the environment than the options listed in paragraph (b)(1) of this section. (c) Owners and operators must maintain records in accordance with § 280.34(b) documenting compliance with paragraph (b) of this section for as long as the UST system is used to store the regulated substance.

**Note to § 280.32.** The following code of practice may be useful in complying with this section: American Petroleum Institute Recommended Practice 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations."

#### § 280.33 Repairs allowed.

Owners and operators of UST systems must ensure that repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The

repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

**Note to paragraph (a).** The following codes of practice may be used to comply with paragraph (a) of this section:

(A) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code";

(B) American Petroleum Institute Recommended Practice RP 2200, "Repairing Crude Oil, Liquefied Petroleum Gas, and Product Pipelines";

(C) American Petroleum Institute Recommended Practice RP 1631, "Interior Lining and Periodic Inspection of Underground Storage Tanks";

(D) National Fire Protection Association Standard 326, "Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair";

(E) National Leak Prevention Association Standard 631, Chapter A, "Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks";

(F) Steel Tank Institute Recommended Practice R972, "Recommended Practice for the Addition of Supplemental Anodes to STI-P3® Tanks";

(G) NACE International Standard Practice SP 0285, "External Control of Underground Storage Tank Systems by Cathodic Protection"; or

(H) Fiberglass Tank and Pipe Institute Recommended Practice T-95-02, "Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks".

(b) Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be replaced. Non-corrodible pipes and fittings may be repaired in accordance with the manufacturer's specifications.

(d) Repairs to secondary containment areas of tanks and piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of piping must have the secondary containment tested for tightness according to the manufacturer's instructions, a code of practice developed by a nationally recognized association or independent testing laboratory, or according to requirements established by the implementing agency within 30 days following the date of completion of the repair. All other repairs to tanks and piping must be tightness tested in accordance with § 280.43(c) and

§ 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d)(1) through (3) of this section:

(1) The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or

(2) The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in § 280.43(d) through (i); or

(3) Another test method is used that is determined by the implementing agency to be no less protective of human health and the environment than those listed in paragraphs (d)(1) and (2) of this section.

**Note to paragraph (d).** The following codes of practice may be used to comply with paragraph (d) of this section:

(A) Steel Tank Institute Recommended Practice R012, "Recommended Practice for Interstitial Tightness Testing of Existing Underground Double Wall Steel Tanks"; or

(B) Fiberglass Tank and Pipe Institute Protocol, "Field Test Protocol for Testing the Annular Space of Installed Underground Fiberglass Double and Triple-Wall Tanks with Dry Annular Space".

(C) Petroleum Equipment Institute Recommended Practice RP1200, "Recommended Practices for the Testing and Verification of Spill, Overflow, Leak Detection and Secondary Containment Equipment at UST Facilities".

(e) Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with § 280.31(b) and (c) to ensure that it is operating properly.

(f) Within 30 days following any repair to spill or overflow prevention equipment, the repaired spill or overflow prevention equipment must be tested or inspected, as appropriate, in accordance with § 280.35 to ensure it is operating properly.

(g) UST system owners and operators must maintain records (in accordance with § 280.34) of each repair until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71.

#### § 280.34 Reporting and recordkeeping.

Owners and operators of UST systems must cooperate fully with inspections, monitoring and testing conducted by the implementing agency, as well as requests for document submission, testing, and monitoring by the owner or operator pursuant to section 9005 of Subtitle I of the Solid Waste Disposal Act, as amended.

(a) *Reporting.* Owners and operators must submit the following information to the implementing agency:

(1) Notification for all UST systems (§ 280.22), which includes certification of installation for new UST systems (§ 280.20(e)) and notification when any person assumes ownership of an UST system (§ 280.22(b));

(2) Notification prior to UST systems switching to certain regulated substances (§ 280.32(b));

(3) Reports of all releases including suspected releases (§ 280.50), spills and overfills (§ 280.53), and confirmed releases (§ 280.61);

(4) Corrective actions planned or taken including initial abatement measures (§ 280.62), initial site characterization (§ 280.63), free product removal (§ 280.64), investigation of soil and groundwater cleanup (§ 280.65), and corrective action plan (§ 280.66); and

(5) A notification before permanent closure or change-in-service (§ 280.71).

(b) *Recordkeeping.* Owners and operators must maintain the following information:

(1) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used (§ 280.20(a)(4); § 280.20(b)(3)).

(2) Documentation of operation of corrosion protection equipment (§ 280.31(d));

(3) Documentation of compatibility for UST systems (§ 280.32(c));

(4) Documentation of UST system repairs (§ 280.33(g));

(5) Documentation of compliance for spill and overfill prevention equipment and containment sumps used for interstitial monitoring of piping (§ 280.35(c));

(6) Documentation of periodic walkthrough inspections (§ 280.36(b));

(7) Documentation of compliance with release detection requirements (§ 280.45);

(8) Results of the site investigation conducted at permanent closure (§ 280.74); and

(9) Documentation of operator training (§ 280.245).

(c) *Availability and maintenance of records.* Owners and operators must keep the records required either:

(1) At the UST site and immediately available for inspection by the implementing agency; or

(2) At a readily available alternative site and be provided for inspection to the implementing agency upon request.

(3) In the case of permanent closure records required under § 280.74, owners and operators are also provided with the additional alternative of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site as indicated in paragraphs (c)(1) and (2) of this section.

**§ 280.35 Periodic testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping and periodic inspection of overfill prevention equipment.**

(a) Owners and operators of UST systems with spill and overfill prevention equipment and containment sumps used for interstitial monitoring of piping must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment:

(1) Spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) and containment sumps used for interstitial monitoring of piping must prevent releases to the environment by meeting one of the following:

(i) The equipment is double walled and the integrity of both walls is periodically monitored at a frequency not less than the frequency of the walkthrough inspections described in § 280.36. Owners and operators must begin meeting paragraph (a)(1)(ii) of this section and conduct a test within 30 days of discontinuing periodic monitoring of this equipment; or

(ii) The spill prevention equipment and containment sumps used for interstitial monitoring of piping are tested at least once every three years to ensure the equipment is liquid tight by using vacuum, pressure, or liquid testing in accordance with one of the following criteria:

(A) Requirements developed by the manufacturer (Note: Owners and operators may use this option only if the manufacturer has developed requirements);

(B) Code of practice developed by a nationally recognized association or independent testing laboratory; or

(C) Requirements determined by the implementing agency to be no less protective of human health and the environment than the requirements listed in paragraphs (a)(1)(ii)(A) and (B) of this section.

(2) Overfill prevention equipment must be inspected at least once every three years. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in § 280.20(c) and will activate when regulated substance reaches that level. Inspections must be conducted in accordance with one of the criteria in paragraph (a)(1)(ii)(A) through (C) of this section.

**Note to paragraphs (a)(1)(ii) and (a)(2).** The following code of practice may be used to comply with paragraphs (a)(1)(ii) and (a)(2) of this section: Petroleum Equipment Institute Publication RP1200,

“Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities”.

(b) Owners and operators must begin meeting these requirements as follows:

(1) For UST systems in use on or before October 13, 2015, the initial spill prevention equipment test, containment sump test and overfill prevention equipment inspection must be conducted not later than October 13, 2018.

(2) For UST systems brought into use after October 13, 2015, these requirements apply at installation.

(c) Owners and operators must maintain records as follows (in accordance with § 280.34) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment:

(1) All records of testing or inspection must be maintained for three years; and

(2) For spill prevention equipment and containment sumps used for interstitial monitoring of piping not tested every three years, documentation showing that the prevention equipment is double walled and the integrity of both walls is periodically monitored must be maintained for as long as the equipment is periodically monitored.

**§ 280.36 Periodic operation and maintenance walkthrough inspections.**

(a) To properly operate and maintain UST systems, not later than October 13, 2018 owners and operators must meet one of the following:

(1) Conduct a walkthrough inspection that, at a minimum, checks the following equipment as specified below:

(i) Every 30 days (Exception: spill prevention equipment at UST systems receiving deliveries at intervals greater than every 30 days may be checked prior to each delivery):

(A) Spill prevention equipment—visually check for damage; remove liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to make sure it is securely on the fill pipe; and, for double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area; and

(B) Release detection equipment—check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present; and ensure records of release detection testing are reviewed and current; and

(ii) Annually:

(A) Containment sumps—visually check for damage, leaks to the containment area, or releases to the

environment; remove liquid (in contained sumps) or debris; and, for double walled sumps with interstitial monitoring, check for a leak in the interstitial area; and

(B) Hand held release detection equipment—check devices such as tank gauge sticks or groundwater bailers for operability and serviceability;

(2) Conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that checks equipment comparable to paragraph (a)(1) of this section; or

**Note to paragraph (a)(2).** The following code of practice may be used to comply with paragraph (a)(2) of this section: Petroleum Equipment Institute Recommended Practice RP 900, “Recommended Practices for the Inspection and Maintenance of UST Systems”.

(3) Conduct operation and maintenance walkthrough inspections developed by the implementing agency that checks equipment comparable to paragraph (a)(1) of this section.

(b) Owners and operators must maintain records (in accordance with § 280.34) of operation and maintenance walkthrough inspections for one year. Records must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

#### Subpart D—Release Detection

##### § 280.40 General requirements for all UST systems.

(a) Owners and operators of UST systems must provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;

(2) Is installed and calibrated in accordance with the manufacturer’s instructions;

(3) Beginning on October 13, 2018, is operated and maintained, and electronic and mechanical components are tested for proper operation, in accordance with one of the following: manufacturer’s instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements determined by the implementing agency to be no less protective of human health and the environment than the two options listed

in paragraphs (a)(1) and (2) of this section. A test of the proper operation must be performed at least annually and, at a minimum, as applicable to the facility, cover the following components and criteria:

(i) Automatic tank gauge and other controllers: test alarm; verify system configuration; test battery backup;

(ii) Probes and sensors: inspect for residual buildup; ensure floats move freely; ensure shaft is not damaged; ensure cables are free of kinks and breaks; test alarm operability and communication with controller;

(iii) Automatic line leak detector: test operation to meet criteria in § 280.44(a) by simulating a leak;

(iv) Vacuum pumps and pressure gauges: ensure proper communication with sensors and controller; and

(v) Hand-held electronic sampling equipment associated with groundwater and vapor monitoring: ensure proper operation.

**Note to paragraph (a)(3).** The following code of practice may be used to comply with paragraph (a)(3) of this section: Petroleum Equipment Institute Publication RP1200, “Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities”.

(4) Meets the performance requirements in § 280.43, § 280.44, or subpart K of this part, as applicable, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, the methods listed in § 280.43(b), (c), (d), (h), and (i), § 280.44(a) and (b), and subpart K of this part, must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of the rule with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(b) When a release detection method operated in accordance with the performance standards in § 280.43, § 280.44, or subpart K of this part indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with subpart E of this part.

(c) Any UST system that cannot apply a method of release detection that complies with the requirements of this subpart must complete the closure procedures in subpart G of this part. For previously deferred UST systems described in subparts A and K of this part, this requirement applies after the effective dates described in § 280.10(a)(1)(ii) and (iii) and § 280.251(a).

##### § 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(a) *Tanks.* Tanks must be monitored for releases as follows:

(1) Tanks installed on or before April 11, 2016 must be monitored for releases at least every 30 days using one of the methods listed in § 280.43(d) through (i) except that:

(i) UST systems that meet the performance standards in § 280.20 or § 280.21, and the monthly inventory control requirements in § 280.43(a) or (b), may use tank tightness testing (conducted in accordance with § 280.43(c)) at least every 5 years until 10 years after the tank was installed; and

(ii) Tanks with capacity of 550 gallons or less and tanks with a capacity of 551 to 1,000 gallons that meet the tank diameter criteria in § 280.43(b) may use manual tank gauging (conducted in accordance with § 280.43(b)).

(2) Tanks installed after April 11, 2016 must be monitored for releases at least every 30 days in accordance with § 280.43(g).

(b) *Piping.* Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

(1) Piping installed on or before April 11, 2016 must meet one of the following:

(i) *Pressurized piping.* Underground piping that conveys regulated substances under pressure must:

(A) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and

(B) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).

(ii) *Suction piping.* Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conducted in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:

(A) The below-grade piping operates at less than atmospheric pressure;

(B) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(C) Only one check valve is included in each suction line;  
 (D) The check valve is located directly below and as close as practical to the suction pump; and  
 (E) A method is provided that allows compliance with paragraphs (b)(1)(ii)(B) through (D) of this section to be readily determined.

(2) Piping installed or replaced after April 11, 2016 must meet one of the following:

- (i) Pressurized piping must be monitored for releases at least every 30 days in accordance with § 280.43(g) and be equipped with an automatic line leak detector in accordance with § 280.44(a)
- (ii) Suction piping must be monitored for releases at least every 30 days in accordance with § 280.43(g). No release detection is required for suction piping that meets paragraphs (b)(1)(ii)(A) through (E) of this section.

**§ 280.42 Requirements for hazardous substance UST systems.**

Owners and operators of hazardous substance UST systems must provide containment that meets the following requirements and monitor these systems using § 280.43(g) at least every 30 days:

- (a) Secondary containment systems must be designed, constructed, and installed to:
  - (1) Contain regulated substances leaked from the primary containment until they are detected and removed;
  - (2) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and
  - (3) Be checked for evidence of a release at least every 30 days.

**Note to paragraph (a).** The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with these requirements for tanks installed on or before October 13, 2015.

- (b) Double walled tanks must be designed, constructed, and installed to:
  - (1) Contain a leak from any portion of the inner tank within the outer wall; and
  - (2) Detect the failure of the inner wall.
- (c) External liners (including vaults) must be designed, constructed, and installed to:

- (1) Contain 100 percent of the capacity of the largest tank within its boundary;
- (2) Prevent the interference of precipitation or groundwater intrusion with the ability to contain or detect a release of regulated substances; and
- (3) Surround the tank completely (*i.e.*, it is capable of preventing lateral as well as vertical migration of regulated substances).
- (d) Underground piping must be equipped with secondary containment that satisfies the requirements of this section (*e.g.*, trench liners, double walled pipe). In addition, underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector in accordance with § 280.44(a).
- (e) For hazardous substance UST systems installed on or before October 13, 2015 other methods of release detection may be used if owners and operators:

- (1) Demonstrate to the implementing agency that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in § 280.43(b) through (i) can detect a release of petroleum;
- (2) Provide information to the implementing agency on effective corrective action technologies, health risks, and chemical and physical properties of the stored substance, and the characteristics of the UST site; and,
- (3) Obtain approval from the implementing agency to use the alternate release detection method before the installation and operation of the new UST system.

**§ 280.43 Methods of release detection for tanks.**

Each method of release detection for tanks used to meet the requirements of § 280.41 must be conducted in accordance with the following:

- (a) *Inventory control.* Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

- (1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;
- (2) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;
- (3) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;
- (4) Deliveries are made through a drop tube that extends to within one foot of the tank bottom;
- (5) Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and
- (6) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

**Note to paragraph (a).** Practices described in the American Petroleum Institute Recommended Practice RP 1621, "Bulk Liquid Stock Control at Retail Outlets" may be used, where applicable, as guidance in meeting the requirements of this paragraph (a).

(b) *Manual tank gauging.* Manual tank gauging must meet the following requirements:

- (1) Tank liquid level measurements are taken at the beginning and ending of a period using the appropriate minimum duration of test value in the table below during which no liquid is added to or removed from the tank;
- (2) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;
- (3) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;
- (4) A release is suspected and subject to the requirements of subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

Nominal tank capacity	Minimum duration of test	Weekly standard (one test)	Monthly standard (four test average)
550 gallons or less .....	36 hours .....	10 gallons ....	5 gallons
551–1,000 gallons (when tank diameter is 64 inches) .....	44 hours .....	9 gallons .....	4 gallons
551–1,000 gallons (when tank diameter is 48 inches) .....	58 hours .....	12 gallons ....	6 gallons
551–1,000 gallons (also requires periodic tank tightness testing) .....	36 hours .....	13 gallons ...	7 gallons
1,001–2,000 gallons (also requires periodic tank tightness testing) .....	36 hours .....	26 gallons ...	13 gallons

(5) Tanks of 550 gallons or less nominal capacity and tanks with a nominal capacity of 551 to 1,000 gallons that meet the tank diameter criteria in the table in paragraph (b)(4) of this section may use this as the sole method of release detection. All other tanks with a nominal capacity of 551 to 2,000 gallons may use the method in place of inventory control in § 280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this subpart.

(c) *Tank tightness testing.* Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(d) *Automatic tank gauging.* Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

(1) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product;

(2) The automatic tank gauging equipment must meet the inventory control (or other test of equivalent performance) requirements of § 280.43(a); and

(3) The test must be performed with the system operating in one of the following modes:

(i) In-tank static testing conducted at least once every 30 days; or

(ii) Continuous in-tank leak detection operating on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

(e) *Vapor monitoring.* Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

(1) The materials used as backfill are sufficiently porous (e.g., gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(2) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile (e.g., gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(3) The measurement of vapors by the monitoring device is not rendered

inoperative by the groundwater, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

(4) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (e)(1) through (4) of this section and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product; and

(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(f) *Groundwater monitoring.* Testing or monitoring for liquids on the groundwater must meet the following requirements:

(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(2) Groundwater is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(3) The slotted portion of the monitoring well casing must be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low groundwater conditions;

(4) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(5) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(6) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the groundwater in the monitoring wells;

(7) Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (f)(1) through (5) of this section and to establish the number and positioning of monitoring wells or devices that will

detect releases from any portion of the tank that routinely contains product; and

(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) *Interstitial monitoring.* Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed, and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

(1) For double walled UST systems, the sampling or testing method can detect a leak through the inner wall in any portion of the tank that routinely contains product;

(2) For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a leak between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least  $10^{-6}$  cm/sec for the regulated substance stored) to direct a leak to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a leak from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(iii) For cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The groundwater, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and,

(vi) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(3) For tanks with an internally fitted liner, an automated device can detect a leak between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(h) *Statistical inventory reconciliation.* Release detection methods based on the application of statistical principles to inventory data similar to those described in § 280.43(a) must meet the following requirements:

(1) Report a quantitative result with a calculated leak rate;

(2) Be capable of detecting a leak rate of 0.2 gallon per hour or a release of 150 gallons within 30 days; and

(3) Use a threshold that does not exceed one-half the minimum detectible leak rate.

(i) *Other methods.* Any other type of release detection method, or

combination of methods, can be used if:

(1) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(2) The implementing agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (c) through (h) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use to ensure the protection of human health and the environment.

#### **§ 280.44 Methods of release detection for piping.**

Each method of release detection for piping used to meet the requirements of § 280.41 must be conducted in accordance with the following:

(a) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with § 280.40(a)(3).

(b) *Line tightness testing.* A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) *Applicable tank methods.* Except as described in § 280.41(a), any of the methods in § 280.43(e) through (i) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

#### **§ 280.45 Release detection recordkeeping.**

All UST system owners and operators must maintain records in accordance with § 280.34 demonstrating compliance

with all applicable requirements of this subpart. These records must include the following:

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation. Not later than October 13, 2018, records of site assessments required under § 280.43(e)(6) and (f)(7) must be maintained for as long as the methods are used. Records of site assessments developed after October 13, 2015 must be signed by a professional engineer or professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or other relevant technical discipline acceptable to the implementing agency;

(b) The results of any sampling, testing, or monitoring must be maintained for at least one year, or for another reasonable period of time determined by the implementing agency, except as follows:

(1) The results of annual operation tests conducted in accordance with § 280.40(a)(3) must be maintained for three years. At a minimum, the results must list each component tested, indicate whether each component tested meets criteria in § 280.40(a)(3) or needs to have action taken, and describe any action taken to correct an issue; and

(2) The results of tank tightness testing conducted in accordance with § 280.43(c) must be retained until the next test is conducted; and

(3) The results of tank tightness testing, line tightness testing, and vapor monitoring using a tracer compound placed in the tank system conducted in accordance with § 280.252(d) must be retained until the next test is conducted; and

(c) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site must be maintained for at least one year after the servicing work is completed, or for another reasonable time period determined by the implementing agency. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be retained for five years from the date of installation.

### **Subpart E—Release Reporting, Investigation, and Confirmation**

#### **§ 280.50 Reporting of suspected releases.**

Owners and operators of UST systems must report to the implementing agency within 24 hours, or another reasonable period specified by the implementing agency, and follow the procedures in § 280.52 for any of the following conditions:

(a) The discovery by owners and operators or others of released regulated substances at the UST site or in the surrounding area (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface water).

(b) Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, an unexplained presence of water in the tank, or liquid in the interstitial space of secondarily contained systems), unless:

(1) The system equipment or component is found not to be releasing regulated substances to the environment;

(2) Any defective system equipment or component is immediately repaired or replaced; and

(3) For secondarily contained systems, except as provided for in § 280.43(g)(2)(iv), any liquid in the interstitial space not used as part of the interstitial monitoring method (for example, brine filled) is immediately removed.

(c) Monitoring results, including investigation of an alarm, from a release detection method required under §§ 280.41 and 280.42 that indicate a release may have occurred unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result;

(2) The leak is contained in the secondary containment and:

(i) Except as provided for in § 280.43(g)(2)(iv), any liquid in the interstitial space not used as part of the interstitial monitoring method (for example, brine filled) is immediately removed; and

(ii) Any defective system equipment or component is immediately repaired or replaced;

(3) In the case of inventory control described in § 280.43(a), a second month of data does not confirm the initial result or the investigation determines no release has occurred; or

(4) The alarm was investigated and determined to be a non-release event

(for example, from a power surge or caused by filling the tank during release detection testing).

**§ 280.51 Investigation due to off-site impacts.**

When required by the implementing agency, owners and operators of UST systems must follow the procedures in § 280.52 to determine if the UST system is the source of off-site impacts. These impacts include the discovery of regulated substances (such as the presence of free product or vapors in soils, basements, sewer and utility lines, and nearby surface and drinking waters) that has been observed by the implementing agency or brought to its attention by another party.

**§ 280.52 Release investigation and confirmation steps.**

Unless corrective action is initiated in accordance with subpart F, owners and operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under § 280.50 within 7 days, or another reasonable time period specified by the implementing agency, using either the following steps or another procedure approved by the implementing agency:

(a) *System test.* Owners and operators must conduct tests (according to the requirements for tightness testing in §§ 280.43(c) and 280.44(b) or, as appropriate, secondary containment testing described in § 280.33(d)).

(1) The test must determine whether:

(i) A leak exists in that portion of the tank that routinely contains product, or the attached delivery piping; or

(ii) A breach of either wall of the secondary containment has occurred.

(2) If the system test confirms a leak into the interstice or a release, owners and operators must repair, replace, upgrade, or close the UST system. In addition, owners and operators must begin corrective action in accordance with subpart F of this part if the test results for the system, tank, or delivery piping indicate that a release exists.

(3) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a release exists and if environmental contamination is not the basis for suspecting a release.

(4) Owners and operators must conduct a site check as described in paragraph (b) of this section if the test results for the system, tank, and delivery piping do not indicate that a release exists but environmental contamination is the basis for suspecting a release.

(b) *Site check.* Owners and operators must measure for the presence of a release where contamination is most

likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth of groundwater, and other factors appropriate for identifying the presence and source of the release.

(1) If the test results for the excavation zone or the UST site indicate that a release has occurred, owners and operators must begin corrective action in accordance with subpart F of this part:

(2) If the test results for the excavation zone or the UST site do not indicate that a release has occurred, further investigation is not required.

**§ 280.53 Reporting and cleanup of spills and overfills.**

(a) Owners and operators of UST systems must contain and immediately clean up a spill or overflow and report to the implementing agency within 24 hours, or another reasonable time period specified by the implementing agency, and begin corrective action in accordance with subpart F of this part in the following cases:

(1) Spill or overflow of petroleum that results in a release to the environment that exceeds 25 gallons or another reasonable amount specified by the implementing agency, or that causes a sheen on nearby surface water; and

(2) Spill or overflow of a hazardous substance that results in a release to the environment that equals or exceeds its reportable quantity under CERCLA (40 CFR part 302).

**Note to paragraph (a).** Pursuant to §§ 302.6 and 355.40 of this chapter, a release of a hazardous substance equal to or in excess of its reportable quantity must also be reported immediately (rather than within 24 hours) to the National Response Center under sections 102 and 103 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and to appropriate state and local authorities under Title III of the Superfund Amendments and Reauthorization Act of 1986.

(b) Owners and operators of UST systems must contain and immediately clean up a spill or overflow of petroleum that is less than 25 gallons or another reasonable amount specified by the implementing agency, and a spill or overflow of a hazardous substance that is less than the reportable quantity. If cleanup cannot be accomplished within 24 hours, or another reasonable time period established by the implementing agency, owners and operators must immediately notify the implementing agency.

**Subpart F—Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances**

**§ 280.60 General.**

Owners and operators of petroleum or hazardous substance UST systems must, in response to a confirmed release from the UST system, comply with the requirements of this subpart except for USTs excluded under § 280.10(b) and UST systems subject to RCRA Subtitle C corrective action requirements under section 3004(u) of the Resource Conservation and Recovery Act, as amended.

**§ 280.61 Initial response.**

Upon confirmation of a release in accordance with § 280.52 or after a release from the UST system is identified in any other manner, owners and operators must perform the following initial response actions within 24 hours of a release or within another reasonable period of time determined by the implementing agency:

(a) Report the release to the implementing agency (e.g., by telephone or electronic mail);

(b) Take immediate action to prevent any further release of the regulated substance into the environment; and

(c) Identify and mitigate fire, explosion, and vapor hazards.

**§ 280.62 Initial abatement measures and site check.**

(a) Unless directed to do otherwise by the implementing agency, owners and operators must perform the following abatement measures:

(1) Remove as much of the regulated substance from the UST system as is necessary to prevent further release to the environment;

(2) Visually inspect any aboveground releases or exposed belowground releases and prevent further migration of the released substance into surrounding soils and groundwater;

(3) Continue to monitor and mitigate any additional fire and safety hazards posed by vapors or free product that have migrated from the UST excavation zone and entered into subsurface structures (such as sewers or basements);

(4) Remedy hazards posed by contaminated soils that are excavated or exposed as a result of release confirmation, site investigation, abatement, or corrective action activities. If these remedies include treatment or disposal of soils, the owner and operator must comply with applicable state and local requirements;

(5) Measure for the presence of a release where contamination is most



likely to be present at the UST site, unless the presence and source of the release have been confirmed in accordance with the site check required by § 280.52(b) or the closure site assessment of § 280.72(a). In selecting sample types, sample locations, and measurement methods, the owner and operator must consider the nature of the stored substance, the type of backfill, depth to groundwater and other factors as appropriate for identifying the presence and source of the release; and

(6) Investigate to determine the possible presence of free product, and begin free product removal as soon as practicable and in accordance with § 280.64.

(b) Within 20 days after release confirmation, or within another reasonable period of time determined by the implementing agency, owners and operators must submit a report to the implementing agency summarizing the initial abatement steps taken under paragraph (a) of this section and any resulting information or data.

#### **§ 280.63 Initial site characterization.**

(a) Unless directed to do otherwise by the implementing agency, owners and operators must assemble information about the site and the nature of the release, including information gained while confirming the release or completing the initial abatement measures in §§ 280.60 and 280.61. This information must include, but is not necessarily limited to the following:

(1) Data on the nature and estimated quantity of release;

(2) Data from available sources and/or site investigations concerning the following factors: Surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, subsurface soil conditions, locations of subsurface sewers, climatological conditions, and land use;

(3) Results of the site check required under § 280.62(a)(5); and

(4) Results of the free product investigations required under § 280.62(a)(6), to be used by owners and operators to determine whether free product must be recovered under § 280.64.

(b) Within 45 days of release confirmation or another reasonable period of time determined by the implementing agency, owners and operators must submit the information collected in compliance with paragraph (a) of this section to the implementing agency in a manner that demonstrates its applicability and technical adequacy, or in a format and according to the

schedule required by the implementing agency.

#### **§ 280.64 Free product removal.**

At sites where investigations under § 280.62(a)(6) indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the implementing agency while continuing, as necessary, any actions initiated under §§ 280.61 through 280.63, or preparing for actions required under §§ 280.65 through 280.66. In meeting the requirements of this section, owners and operators must:

(a) Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery byproducts in compliance with applicable local, state, and federal regulations;

(b) Use abatement of free product migration as a minimum objective for the design of the free product removal system;

(c) Handle any flammable products in a safe and competent manner to prevent fires or explosions; and

(d) Unless directed to do otherwise by the implementing agency, prepare and submit to the implementing agency, within 45 days after confirming a release, a free product removal report that provides at least the following information:

(1) The name of the person(s) responsible for implementing the free product removal measures;

(2) The estimated quantity, type, and thickness of free product observed or measured in wells, boreholes, and excavations;

(3) The type of free product recovery system used;

(4) Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

(5) The type of treatment applied to, and the effluent quality expected from, any discharge;

(6) The steps that have been or are being taken to obtain necessary permits for any discharge; and

(7) The disposition of the recovered free product.

#### **§ 280.65 Investigations for soil and groundwater cleanup.**

(a) In order to determine the full extent and location of soils contaminated by the release and the presence and concentrations of

dissolved product contamination in the groundwater, owners and operators must conduct investigations of the release, the release site, and the surrounding area possibly affected by the release if any of the following conditions exist:

(1) There is evidence that groundwater wells have been affected by the release (*e.g.*, as found during release confirmation or previous corrective action measures);

(2) Free product is found to need recovery in compliance with § 280.64;

(3) There is evidence that contaminated soils may be in contact with groundwater (*e.g.*, as found during conduct of the initial response measures or investigations required under §§ 280.60 through 280.64); and

(4) The implementing agency requests an investigation, based on the potential effects of contaminated soil or groundwater on nearby surface water and groundwater resources.

(b) Owners and operators must submit the information collected under paragraph (a) of this section as soon as practicable or in accordance with a schedule established by the implementing agency.

#### **§ 280.66 Corrective action plan.**

(a) At any point after reviewing the information submitted in compliance with §§ 280.61 through 280.63, the implementing agency may require owners and operators to submit additional information or to develop and submit a corrective action plan for responding to contaminated soils and groundwater. If a plan is required, owners and operators must submit the plan according to a schedule and format established by the implementing agency. Alternatively, owners and operators may, after fulfilling the requirements of §§ 280.61 through 280.63, choose to submit a corrective action plan for responding to contaminated soil and groundwater. In either case, owners and operators are responsible for submitting a plan that provides for adequate protection of human health and the environment as determined by the implementing agency, and must modify their plan as necessary to meet this standard.

(b) The implementing agency will approve the corrective action plan only after ensuring that implementation of the plan will adequately protect human health, safety, and the environment. In making this determination, the implementing agency should consider the following factors as appropriate:

(1) The physical and chemical characteristics of the regulated

substance, including its toxicity, persistence, and potential for migration;

(2) The hydrogeologic characteristics of the facility and the surrounding area;

(3) The proximity, quality, and current and future uses of nearby surface water and groundwater;

(4) The potential effects of residual contamination on nearby surface water and groundwater;

(5) An exposure assessment; and

(6) Any information assembled in compliance with this subpart.

(c) Upon approval of the corrective action plan or as directed by the implementing agency, owners and operators must implement the plan, including modifications to the plan made by the implementing agency. They must monitor, evaluate, and report the results of implementing the plan in accordance with a schedule and in a format established by the implementing agency.

(d) Owners and operators may, in the interest of minimizing environmental contamination and promoting more effective cleanup, begin cleanup of soil and groundwater before the corrective action plan is approved provided that they:

(1) Notify the implementing agency of their intention to begin cleanup;

(2) Comply with any conditions imposed by the implementing agency, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(3) Incorporate these self-initiated cleanup measures in the corrective action plan that is submitted to the implementing agency for approval.

#### **§ 280.67 Public participation.**

(a) For each confirmed release that requires a corrective action plan, the implementing agency must provide notice to the public by means designed to reach those members of the public directly affected by the release and the planned corrective action. This notice may include, but is not limited to, public notice in local newspapers, block advertisements, public service announcements, publication in a state register, letters to individual households, or personal contacts by field staff.

(b) The implementing agency must ensure that site release information and decisions concerning the corrective action plan are made available to the public for inspection upon request.

(c) Before approving a corrective action plan, the implementing agency may hold a public meeting to consider comments on the proposed corrective action plan if there is sufficient public interest, or for any other reason.

(d) The implementing agency must give public notice that complies with paragraph (a) of this section if implementation of an approved corrective action plan does not achieve the established cleanup levels in the plan and termination of that plan is under consideration by the implementing agency.

#### **Subpart G—Out-of-Service UST Systems and Closure**

##### **§ 280.70 Temporary closure.**

(a) When an UST system is temporarily closed, owners and operators must continue operation and maintenance of corrosion protection in accordance with § 280.31, and any release detection in accordance with subparts D and K of this part. Subparts E and F of this part must be complied with if a release is suspected or confirmed. However, release detection and release detection operation and maintenance testing and inspections in subparts C and D of this part are not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remain in the system. In addition, spill and overflow operation and maintenance testing and inspections in subpart C of this part are not required.

(b) When an UST system is temporarily closed for 3 months or more, owners and operators must also comply with the following requirements:

(1) Leave vent lines open and functioning; and

(2) Cap and secure all other lines, pumps, manways, and ancillary equipment.

(c) When an UST system is temporarily closed for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in § 280.20 for new UST systems or the upgrading requirements in § 280.21, *except that* the spill and overflow equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period in accordance with §§ 280.71 through 280.74, *unless* the implementing agency provides an extension of the 12-month temporary closure period. Owners and operators must complete a site assessment in accordance with § 280.72 before such an extension can be applied for.

##### **§ 280.71 Permanent closure and change-in-service.**

(a) At least 30 days before beginning either permanent closure or a change-in-service under paragraphs (b) and (c) of this section, or within another reasonable time period determined by the implementing agency, owners and operators must notify the implementing agency of their intent to permanently close or make the change-in-service, *unless* such action is in response to corrective action. The required assessment of the excavation zone under § 280.72 must be performed after notifying the implementing agency but before completion of the permanent closure or a change-in-service.

(b) To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. All tanks taken out of service permanently must: be removed from the ground, filled with an inert solid material, or closed in place in a manner approved by the implementing agency.

(c) Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with § 280.72.

**Note to § 280.71.** The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice RP 1604, "Closure of Underground Petroleum Storage Tanks";

(B) American Petroleum Institute Standard 2015, "Safe Entry and Cleaning of Petroleum Storage Tanks, Planning and Managing Tank Entry From Decommissioning Through Recommissioning";

(C) American Petroleum Institute Recommended Practice 2016, "Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks";

(D) American Petroleum Institute Recommended Practice RP 1631, "Interior Lining and Periodic Inspection of Underground Storage Tanks," may be used as guidance for compliance with this section;

(E) National Fire Protection Association Standard 326, "Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair"; and

(F) National Institute for Occupational Safety and Health Publication 80-106, "Criteria for a Recommended Standard . . . Working in Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.

##### **§ 280.72 Assessing the site at closure or change-in-service.**

(a) Before permanent closure or a change-in-service is completed, owners

and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to groundwater, and other factors appropriate for identifying the presence of a release. The requirements of this section are satisfied if one of the external release detection methods allowed in § 280.43(e) and (f) is operating in accordance with the requirements in § 280.43 at the time of closure, and indicates no release has occurred.

(b) If contaminated soils, contaminated groundwater, or free product as a liquid or vapor is discovered under paragraph (a) of this section, or by any other manner, owners and operators must begin corrective action in accordance with subpart F of this part.

#### **§ 280.73 Applicability to previously closed UST systems.**

When directed by the implementing agency, the owner and operator of an UST system permanently closed before December 22, 1988 must assess the excavation zone and close the UST system in accordance with this subpart if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.

#### **§ 280.74 Closure records.**

Owners and operators must maintain records in accordance with § 280.34 that are capable of demonstrating compliance with closure requirements under this subpart. The results of the excavation zone assessment required in § 280.72 must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the UST system out of service;
- (b) By the current owners and operators of the UST system site; or
- (c) By mailing these records to the implementing agency if they cannot be maintained at the closed facility.

### **Subpart H—Financial Responsibility**

#### **§ 280.90 Applicability.**

(a) This subpart applies to owners and operators of all petroleum underground storage tank (UST) systems except as otherwise provided in this section.

(b) Owners and operators of petroleum UST systems are subject to

these requirements in accordance with § 280.91.

(c) State and Federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of this subpart.

(d) The requirements of this subpart do not apply to owners and operators of any UST system described in § 280.10(b), (c)(1), (c)(3), or (c)(4).

(e) If the owner and operator of a petroleum underground storage tank are separate persons, only one person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance.

#### **§ 280.91 Compliance dates.**

Owners of petroleum underground storage tanks must comply with the requirements of this subpart. Previously deferred UST systems must comply with the requirements of this subpart according to the schedule in § 280.251(a).

#### **§ 280.92 Definition of terms.**

When used in this subpart, the following terms shall have the meanings given below:

*Accidental release* means any sudden or nonsudden release of petroleum arising from operating an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

*Bodily injury* shall have the meaning given to this term by applicable state law; however, this term shall not include those liabilities which, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

*Chief Financial Officer*, in the case of local government owners and operators, means the individual with the overall authority and responsibility for the collection, disbursement, and use of funds by the local government.

*Controlling interest* means direct ownership of at least 50 percent of the voting stock of another entity.

*Director of the Implementing Agency* means the EPA Regional Administrator, or, in the case of a state with a program approved under section 9004, the Director of the designated state or local agency responsible for carrying out an approved UST program.

*Financial reporting year* means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

- (1) A 10-K report submitted to the SEC;

(2) An annual report of tangible net worth submitted to Dun and Bradstreet; or

(3) Annual reports submitted to the Energy Information Administration or the Rural Utilities Service.

Note to the definition of *Financial reporting year*. “Financial reporting year” may thus comprise a fiscal or a calendar year period.

*Legal defense cost* is any expense that an owner or operator or provider of financial assurance incurs in defending against claims or actions brought:

(1) By EPA or a state to require corrective action or to recover the costs of corrective action;

(2) By or on behalf of a third party for bodily injury or property damage caused by an accidental release; or

(3) By any person to enforce the terms of a financial assurance mechanism.

*Local government* shall have the meaning given this term by applicable state law and includes Indian tribes.

The term is generally intended to include:

(1) Counties, municipalities, townships, separately chartered and operated special districts (including local government public transit systems and redevelopment authorities), and independent school districts authorized as governmental bodies by state charter or constitution; and

(2) Special districts and independent school districts established by counties, municipalities, townships, and other general purpose governments to provide essential services.

*Occurrence* means an accident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank.

Note to the definition of *Occurrence*. This definition is intended to assist in the understanding of these regulations and is not intended either to limit the meaning of “occurrence” in a way that conflicts with standard insurance usage or to prevent the use of other standard insurance terms in place of “occurrence.”

*Owner or operator*, when the owner or operator are separate parties, refers to the party that is obtaining or has obtained financial assurances.

*Petroleum marketing facilities* include all facilities at which petroleum is produced or refined and all facilities from which petroleum is sold or transferred to other petroleum marketers or to the public.

*Property damage* shall have the meaning given this term by applicable state law. This term shall not include those liabilities which, consistent with standard insurance industry practices,

are excluded from coverage in liability insurance policies for property damage. However, such exclusions for property damage shall not include corrective action associated with releases from tanks which are covered by the policy.

*Provider of financial assurance* means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in §§ 280.95 through 280.107, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

*Substantial business relationship* means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from and depends on existing economic transactions between the guarantor and the owner or operator.

*Substantial governmental relationship* means the extent of a governmental relationship necessary under applicable state law to make an added guarantee contract issued incident to that relationship valid and enforceable. A guarantee contract is issued "incident to that relationship" if it arises from a clear commonality of interest in the event of an UST release such as coterminous boundaries, overlapping constituencies, common groundwater aquifer, or other relationship other than monetary compensation that provides a motivation for the guarantor to provide a guarantee.

*Tangible net worth* means the tangible assets that remain after deducting liabilities; such assets do not include intangibles such as goodwill and rights to patents or royalties. For purposes of this definition, "assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity as a result of past transactions.

*Termination* under § 280.97(b)(1) and (2) means only those changes that could result in a gap in coverage as where the insured has not obtained substitute coverage or has obtained substitute coverage with a different retroactive date than the retroactive date of the original policy.

**§ 280.93 Amount and scope of required financial responsibility.**

(a) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by

accidental releases arising from the operation of petroleum underground storage tanks in at least the following per-occurrence amounts:

(1) For owners or operators of petroleum underground storage tanks that are located at petroleum marketing facilities, or that handle an average of more than 10,000 gallons of petroleum per month based on annual throughput for the previous calendar year; \$1 million.

(2) For all other owners or operators of petroleum underground storage tanks; \$500,000.

(b) Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in at least the following annual aggregate amounts:

(1) For owners or operators of 1 to 100 petroleum underground storage tanks, \$1 million; and

(2) For owners or operators of 101 or more petroleum underground storage tanks, \$2 million.

(c) For the purposes of paragraphs (b) and (f) of this section, only, "a petroleum underground storage tank" means a single containment unit and does not mean combinations of single containment units.

(d) Except as provided in paragraph (e) of this section, if the owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for:

(1) Taking corrective action;

(2) Compensating third parties for bodily injury and property damage caused by sudden accidental releases; or

(3) Compensating third parties for bodily injury and property damage caused by nonsudden accidental releases, the amount of assurance provided by each mechanism or combination of mechanisms must be in the full amount specified in paragraphs (a) and (b) of this section.

(e) If an owner or operator uses separate mechanisms or separate combinations of mechanisms to demonstrate financial responsibility for different petroleum underground storage tanks, the annual aggregate required shall be based on the number of tanks covered by each such separate mechanism or combination of mechanisms.

(f) Owners or operators shall review the amount of aggregate assurance provided whenever additional petroleum underground storage tanks are acquired or installed. If the number

of petroleum underground storage tanks for which assurance must be provided exceeds 100, the owner or operator shall demonstrate financial responsibility in the amount of at least \$2 million of annual aggregate assurance by the anniversary of the date on which the mechanism demonstrating financial responsibility became effective. If assurance is being demonstrated by a combination of mechanisms, the owner or operator shall demonstrate financial responsibility in the amount of at least \$2 million of annual aggregate assurance by the first-occurring effective date anniversary of any one of the mechanisms combined (other than a financial test or guarantee) to provide assurance.

(g) The amounts of assurance required under this section exclude legal defense costs.

(h) The required per-occurrence and annual aggregate coverage amounts do not in any way limit the liability of the owner or operator.

**§ 280.94 Allowable mechanisms and combinations of mechanisms.**

(a) Subject to the limitations of paragraphs (b) and (c) of this section:

(1) An owner or operator, including a local government owner or operator, may use any one or combination of the mechanisms listed in §§ 280.95 through 280.103 to demonstrate financial responsibility under this subpart for one or more underground storage tanks; and

(2) A local government owner or operator may use any one or combination of the mechanisms listed in §§ 280.104 through 280.107 to demonstrate financial responsibility under this subpart for one or more underground storage tanks.

(b) An owner or operator may use a guarantee under § 280.96 or surety bond under § 280.98 to establish financial responsibility only if the Attorney(s) General of the state(s) in which the underground storage tanks are located has (have) submitted a written statement to the implementing agency that a guarantee or surety bond executed as described in this section is a legally valid and enforceable obligation in that state.

(c) An owner or operator may use self-insurance in combination with a guarantee only if, for the purpose of meeting the requirements of the financial test under this rule, the financial statements of the owner or operator are not consolidated with the financial statements of the guarantor.

**§ 280.95 Financial test of self-insurance.**

(a) An owner or operator, and/or guarantor, may satisfy the requirements

of § 280.93 by passing a financial test as specified in this section. To pass the financial test of self-insurance, the owner or operator, and/or guarantor must meet the criteria of paragraph (b) or (c) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The owner or operator, and/or guarantor, must have a tangible net worth of at least ten times:

(i) The total of the applicable aggregate amount required by § 280.93, based on the number of underground storage tanks for which a financial test is used to demonstrate financial responsibility to EPA under this section or to a state implementing agency under a state program approved by EPA under 40 CFR part 281;

(ii) The sum of the corrective action cost estimates, the current closure and post-closure care cost estimates, and amount of liability coverage for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 264.101, 264.143, 264.145, 265.143, 265.145, 264.147, and 265.147 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 271; and

(iii) The sum of current plugging and abandonment cost estimates for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 144.63 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 145.

(2) The owner or operator, and/or guarantor, must have a tangible net worth of at least \$10 million.

(3) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer worded as specified in paragraph (d) of this section.

(4) The owner or operator, and/or guarantor, must either:

(i) File financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Utilities Service; or

(ii) Report annually the firm's tangible net worth to Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a financial strength rating of 4A or 5A.

(5) The firm's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(c)(1) The owner or operator, and/or guarantor must meet the financial test requirements of 40 CFR 264.147(f)(1), substituting the appropriate amounts specified in § 280.93(b)(1) and (2) for the

"amount of liability coverage" each time specified in that section.

(2) The fiscal year-end financial statements of the owner or operator, and/or guarantor, must be examined by an independent certified public accountant and be accompanied by the accountant's report of the examination.

(3) The firm's year-end financial statements cannot include an adverse auditor's opinion, a disclaimer of opinion, or a "going concern" qualification.

(4) The owner or operator, and/or guarantor, must have a letter signed by the chief financial officer, worded as specified in paragraph (d) of this section.

(5) If the financial statements of the owner or operator, and/or guarantor, are not submitted annually to the U.S. Securities and Exchange Commission, the Energy Information Administration or the Rural Utilities Service, the owner or operator, and/or guarantor, must obtain a special report by an independent certified public accountant stating that:

(i) He has compared the data that the letter from the chief financial officer specifies as having been derived from the latest year-end financial statements of the owner or operator, and/or guarantor, with the amounts in such financial statements; and

(ii) In connection with that comparison, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(d) To demonstrate that it meets the financial test under paragraph (b) or (c) of this section, the chief financial officer of the owner or operator, or guarantor, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter From Chief Financial Officer

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: "the financial test of self-insurance," and/or "guarantee"] to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] in the amount of at least [insert: dollar amount] per

occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this financial test or a financial test under an authorized State program by this [insert: "owner or operator," and/or "guarantor"]: [List for each facility: the name and address of the facility where tanks assured by this financial test are located, and whether tanks are assured by this financial test or a financial test under a State program approved under 40 CFR part 281. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test or a financial test under a State program authorized under 40 CFR part 281 by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding State requirements.]

A [insert: "financial test," and/or "guarantee"] is also used by this [insert: "owner or operator," or "guarantor"] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or state programs authorized by EPA under 40 CFR parts 271 and 145:

EPA Regulations	Amount
Closure (§§ 264.143 and 265.143)	\$ _____
Post-Closure Care (§§ 264.145 and 265.145) .....	\$ _____
Liability Coverage (§§ 264.147 and 265.147) .....	\$ _____
Corrective Action (§ 264.101(b))	\$ _____
Plugging and Abandonment (§ 144.63) .....	\$ _____
Closure .....	\$ _____
Post-Closure Care .....	\$ _____
Liability Coverage .....	\$ _____
Corrective Action .....	\$ _____
Plugging and Abandonment .....	\$ _____
Total .....	\$ _____

This [insert: "owner or operator," or "guarantor"] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of paragraph (b) of § 280.95 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of paragraph (c) of § 280.95 are being used to demonstrate compliance with the financial test requirements.]

Alternative I

Alternative I

statements, or within 30 days of notification by the Director of the implementing agency that he or she no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

**§ 280.96 Guarantee.**

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be:

- (1) A firm that:
  - (i) Possesses a controlling interest in the owner or operator;
  - (ii) Possesses a controlling interest in a firm described under paragraph (a)(1)(i) of this section; or,
  - (iii) Is controlled through stock ownership by a common parent firm that possesses a controlling interest in the owner or operator; or,
- (2) A firm engaged in a substantial business relationship with the owner or operator and issuing the guarantee as an act incident to that business relationship.

(b) Within 120 days of the close of each financial reporting year the guarantor must demonstrate that it meets the financial test criteria of § 280.95 based on year-end financial statements for the latest completed financial reporting year by completing the letter from the chief financial officer described in § 280.95(d) and must deliver the letter to the owner or operator. If the guarantor fails to meet the requirements of the financial test at the end of any financial reporting year, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator. If the Director of the implementing agency notifies the guarantor that he no longer meets the requirements of the financial test of § 280.95(b) or (c) and (d), the guarantor must notify the owner or operator within 10 days of receiving such notification from the Director. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.114(e).

(c) The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

- 1. Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee ..... \$ \_\_\_\_\_
- 2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee ..... \$ \_\_\_\_\_
- 3. Sum of lines 1 and 2 ..... \$ \_\_\_\_\_
- 4. Total tangible assets ..... \$ \_\_\_\_\_
- 5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] ..... \$ \_\_\_\_\_
- 6. Tangible net worth [subtract line 5 from line 4] ..... \$ \_\_\_\_\_
- 7. Is line 6 at least \$10 million? ..... Yes No
- 8. Is line 6 at least 10 times line 3? ..... Yes No
- 9. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission? ..... Yes No
- 10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration? ..... Yes No
- 11. Have financial statements for the latest fiscal year been filed with the Rural Utilities Service? ..... Yes No
- 12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer "Yes" only if both criteria have been met] ..... Yes No

- 10. Are at least 90 percent of assets located in the U.S.? [If "No," complete line 11.] ..... Yes No
- 11. Is line 7 at least 6 times line 3? [Fill in either lines 12-15 or lines 16-18:] ..... Yes No
- 12. Current assets ..... \$ \_\_\_\_\_
- 13. Current liabilities ..... \$ \_\_\_\_\_
- 14. Net working capital [subtract line 13 from line 12] ..... \$ \_\_\_\_\_
- 15. Is line 14 at least 6 times line 3? ..... Yes No
- 16. Current bond rating of most recent bond issue ..... Yes No
- 17. Name of rating service ..... Yes No
- 18. Date of maturity of bond ..... Yes No
- 19. Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Utilities Service? ..... Yes No

[If "No," please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4-18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.95(d) as such regulations were constituted on the date shown immediately below.

[Signature]  
[Name]  
[Title]  
[Date]

(e) If an owner or operator using the test to provide financial assurance finds that he or she no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(f) The Director of the implementing agency may require reports of financial condition at any time from the owner or operator, and/or guarantor. If the Director finds, on the basis of such reports or other information, that the owner or operator, and/or guarantor, no longer meets the financial test requirements of § 280.95(b) or (c) and (d), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(g) If the owner or operator fails to obtain alternate assurance within 150 days of finding that he or she no longer meets the requirements of the financial test based on the year-end financial

- Alternative II
- 1. Amount of annual UST aggregate coverage being assured by a test, and/or guarantee ..... \$ \_\_\_\_\_
  - 2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee ..... \$ \_\_\_\_\_
  - 3. Sum of lines 1 and 2 ..... \$ \_\_\_\_\_
  - 4. Total tangible assets ..... \$ \_\_\_\_\_
  - 5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6] ..... \$ \_\_\_\_\_
  - 6. Tangible net worth [subtract line 5 from line 4] ..... \$ \_\_\_\_\_
  - 7. Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.] ..... \$ \_\_\_\_\_
  - 8. Is line 6 at least \$10 million? ..... Yes No
  - 9. Is line 6 at least 6 times line 3? ..... Yes No

**Guarantee**

Guarantee made this [date] by [name of guaranteeing entity], a business entity organized under the laws of the state of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obligees, on behalf of [owner or operator] of [business address].

**Recitals.**

(1) Guarantor meets or exceeds the financial test criteria of 40 CFR 280.95(b) or (c) and (d) and agrees to comply with the requirements for guarantors as specified in 40 CFR 280.96(b).

(2) [Owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or operator); "On behalf of our affiliate" (if guarantor is a related firm of the owner or operator); or "Incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director], shall fund a standby trust

fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of 40 CFR 280.95(b) or (c) and (d), guarantor shall send within 120 days of such failure, by certified mail, notice to [owner or operator]. The guarantee will terminate 120 days from the date of receipt of the notice by [owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above-identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaded to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.96(c) as such regulations were constituted on the effective date shown immediately below.

Effective date: \_\_\_\_\_

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

(d) An owner or operator who uses a guarantee to satisfy the requirements of § 280.93 must establish a standby trust fund when the guarantee is obtained. Under the terms of the guarantee, all amounts paid by the guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Director of the implementing agency under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

**§ 280.97 Insurance and risk retention group coverage.**

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining liability insurance that conforms to the requirements of this section from a qualified insurer or risk

retention group. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

(b) Each insurance policy must be amended by an endorsement worded as specified in paragraph (b)(1) of this section, or evidenced by a certificate of insurance worded as specified in paragraph (b)(2) of this section, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

(1) Endorsement.

Name: [name of each covered location]

Address: [address of each covered location]

Policy Number:

Period of Coverage: [current policy period]

Address of [Insurer or Risk Retention Group]:

Name of Insured:

Address of Insured:

Endorsement:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following underground storage tanks:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.] for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the

type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each Occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e);

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95–280.102 and 280.104–280.107.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"], except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the ["Insurer" or "Group"] within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(1) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states"].

[Signature of authorized representative of Insurer or Risk Retention Group]

[Name of person signing]

[Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

(2) Certificate of Insurance.

Name: [name of each covered location]

Address: [address of each covered location]

Policy Number:

Endorsement (if applicable):

Period of Coverage: [current policy period]

Name of [Insurer or Risk Retention Group]:

Address of [Insurer or Risk Retention Group]:

Name of Insured:

Address of Insured:

Certification:

1. [Name of Insurer or Risk Retention Group], [the "Insurer" or "Group"], as identified above, hereby certifies that it



has issued liability insurance covering the following underground storage tank(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.] for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”; in accordance with and subject to the limits of liability, exclusions, conditions, and other terms of the policy; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the “each occurrence” and “annual aggregate” limits of the Insurer’s or Group’s liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs, which are subject to a separate limit under the policy. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The [“Insurer” or “Group”] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the [“Insurer” or “Group”] of its obligations under the policy to which this certificate applies.

b. The [“Insurer” or “Group”] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the [“Insurer” or “Group”]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95–280.102 and 280.104–280.107.

c. Whenever requested by [a Director of an implementing agency], the [“Insurer” or “Group”] agrees to furnish to [the Director] a signed duplicate

original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the [“Insurer” or “Group”], except for non-payment of premium or misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured. Cancellation for non-payment of premium or misrepresentation by the insured will be effective only upon written notice and only after expiration of a minimum of 10 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies]:

e. The insurance covers claims otherwise covered by the policy that are reported to the [“Insurer” or “Group”] within six months of the effective date of cancellation or non-renewal of the policy except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and which arise out of any covered occurrence that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date. Claims reported during such extended reporting period are subject to the terms, conditions, limits, including limits of liability, and exclusions of the policy.]

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(2) and that the [“Insurer” or “Group”] is [“licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states”].

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of  
[name of Insurer or Risk Retention Group]

[Address of Representative]

(c) Each insurance policy must be issued by an insurer or a risk retention group that, at a minimum, is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states.

#### § 280.98 Surety bond.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining a surety bond that conforms to the requirements of this section. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the latest Circular 570 of the U.S. Department of the Treasury.

(b) The surety bond must be worded as follows, except that instructions in

brackets must be replaced with the relevant information and the brackets deleted:

Performance Bond

Date bond executed:

Period of coverage:

Principal: [legal name and business address of owner or operator]

Type of organization: [insert “individual,” “joint venture,” “partnership,” or “corporation”]

State of incorporation (if applicable):

Surety(ies): [name(s) and business address(es)]

Scope of Coverage: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility. List the coverage guaranteed by the bond: “taking corrective action” and/or “compensating third parties for bodily injury and property damage caused by” either “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases” “arising from operating the underground storage Tank”].

Penal sums of bond:

Per occurrence \$

Annual aggregate \$

Surety’s bond number:

Know All Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to [the implementing agency], in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself,

jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under Subtitle I of the Solid Waste Disposal Act, as amended, to provide financial assurance for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tanks identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully ["take corrective action, in accordance with 40 CFR part 280, subpart F and the Director of the state implementing agency's instructions for," and/or "compensate injured third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the tank(s) identified above, or if the Principal shall provide alternate financial assurance, as specified in 40 CFR part 280, subpart H, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by [the Director of the implementing agency] that the Principal has failed to ["take corrective action, in accordance with 40 CFR part 280, subpart F and the Director's instructions," and/or "compensate injured third parties"] as guaranteed by this bond, the Surety(ies) shall either perform ["corrective action in accordance with 40 CFR part 280 and the Director's instructions," and/or "third-party liability compensation"] or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by [the Regional Administrator or the Director] under 40 CFR 280.112.

Upon notification by [the Director] that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that [the Director] has determined or suspects that a release has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by [the Director] under 40 CFR 280.112.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 280.98(b) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)]  
[Names(s)]  
[Title(s)]  
[Corporate seal]

Corporate Surety(ies)

[Name and address]  
[State of Incorporation: \_\_\_\_\_]  
[Liability limit: \$ \_\_\_\_\_]  
[Signature(s)]  
[Names(s) and title(s)]  
[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]

Bond premium: \$ \_\_\_\_\_

(c) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the per-occurrence and annual aggregate penal sums.

(d) The owner or operator who uses a surety bond to satisfy the requirements of § 280.93 must establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Director under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

#### § 280.99 Letter of credit.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining an irrevocable standby letter of credit that conforms to the requirements of this section. The issuing institution must be an entity that has the authority to issue letters of credit in each state where used and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(b) The letter of credit must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

## Irrevocable Standby Letter of Credit

[Name and address of issuing institution]

[Name and address of Director(s) of state implementing agency(ies)]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. \_\_\_\_ in your favor, at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars (\$[insert dollar amount]), available upon presentation [insert, if more than one Director of a state implementing agency is a beneficiary, "by any one of you"] of

(1) your sight draft, bearing reference to this letter of credit, No. \_\_\_\_ and  
(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of Subtitle I of the Solid Waste Disposal Act, as amended."

This letter of credit may be drawn on to cover [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the underground storage tank(s) identified below in the amount of [in words] \$[insert dollar amount] per occurrence and [in words] \$[insert dollar amount] annual aggregate:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by

[insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [owner or operator] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator], as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 280.99(b) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]  
[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

(c) An owner or operator who uses a letter of credit to satisfy the requirements of § 280.93 must also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director of the implementing agency will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

(d) The letter of credit must be irrevocable with a term specified by the

issuing institution. The letter of credit must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator by certified mail of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin on the date when the owner or operator receives the notice, as evidenced by the return receipt.

#### § 280.100 Use of state-required mechanism.

(a) For underground storage tanks located in a state that does not have an approved program, and where the state requires owners or operators of underground storage tanks to demonstrate financial responsibility for taking corrective action and/or for compensating third parties for bodily injury and property damage, an owner or operator may use a state-required financial mechanism to meet the requirements of § 280.93 if the Regional Administrator determines that the state mechanism is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state-required mechanism principally in terms of: certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state, an owner or operator, or any other interested party may submit to the Regional Administrator a written petition requesting that one or more of the state-required mechanisms be considered acceptable for meeting the requirements of § 280.93. The submission must include copies of the appropriate state statutory and regulatory requirements and must show the amount of funds for corrective action and/or for compensating third parties assured by the mechanism(s). The Regional Administrator may require the petitioner to submit additional information as is deemed necessary to make this determination.

(d) Any petition under this section may be submitted on behalf of all of the state's underground storage tank owners and operators.

(e) The Regional Administrator will notify the petitioner of his determination regarding the mechanism's acceptability in lieu of financial mechanisms specified in this

subpart. Pending this determination, the owners and operators using such mechanisms will be deemed to be in compliance with the requirements of § 280.93 for underground storage tanks located in the state for the amounts and types of costs covered by such mechanisms.

**§ 280.101 State fund or other state assurance.**

(a) An owner or operator may satisfy the requirements of § 280.93 for underground storage tanks located in a state, where EPA is administering the requirements of this subpart, which assures that monies will be available from a state fund or state assurance program to cover costs up to the limits specified in § 280.93 or otherwise assures that such costs will be paid if the Regional Administrator determines that the state's assurance is at least equivalent to the financial mechanisms specified in this subpart.

(b) The Regional Administrator will evaluate the equivalency of a state fund or other state assurance principally in terms of: Certainty of the availability of funds for taking corrective action and/or for compensating third parties; the amount of funds that will be made available; and the types of costs covered. The Regional Administrator may also consider other factors as is necessary.

(c) The state must submit to the Regional Administrator a description of the state fund or other state assurance to be supplied as financial assurance, along with a list of the classes of underground storage tanks to which the funds may be applied. The Regional Administrator may require the state to submit additional information as is deemed necessary to make a determination regarding the acceptability of the state fund or other state assurance. Pending the determination by the Regional Administrator, the owner or operator of a covered class of USTs will be deemed to be in compliance with the requirements of § 280.93 for the amounts and types of costs covered by the state fund or other state assurance.

(d) The Regional Administrator will notify the state of his determination regarding the acceptability of the state's fund or other assurance in lieu of financial mechanisms specified in this subpart. Within 60 days after the Regional Administrator notifies a state that a state fund or other state assurance is acceptable, the state must provide to each owner or operator for which it is assuming financial responsibility a letter or certificate describing the nature of the state's assumption of

responsibility. The letter or certificate from the state must include, or have attached to it, the following information: the facility's name and address and the amount of funds for corrective action and/or for compensating third parties that is assured by the state. The owner or operator must maintain this letter or certificate on file as proof of financial responsibility in accordance with § 280.111(b)(8).

**§ 280.102 Trust fund.**

(a) An owner or operator may satisfy the requirements of § 280.93 by establishing a trust fund that conforms to the requirements of this section. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal agency or an agency of the state in which the fund is established.

(b) The wording of the trust agreement must be identical to the wording specified in § 280.103(b)(1), and must be accompanied by a formal certification of acknowledgement as specified in § 280.103(b)(2).

(c) The trust fund, when established, must be funded for the full required amount of coverage, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining required coverage.

(d) If the value of the trust fund is greater than the required amount of coverage, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(e) If other financial assurance as specified in this subpart is substituted for all or part of the trust fund, the owner or operator may submit a written request to the Director of the implementing agency for release of the excess.

(f) Within 60 days after receiving a request from the owner or operator for release of funds as specified in paragraph (d) or (e) of this section, the Director of the implementing agency will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

**§ 280.103 Standby trust fund.**

(a) An owner or operator using any one of the mechanisms authorized by §§ 280.96, 280.98, or 280.99 must establish a standby trust fund when the mechanism is acquired. The trustee of the standby trust fund must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal agency or an

agency of the state in which the fund is established.

(b)(1) The standby trust agreement, or trust agreement, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

**Trust Agreement**

Trust agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "Incorporated in the state of \_\_\_\_\_" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of an underground storage tank shall provide assurance that funds will be available when needed for corrective action and third-party compensation for bodily injury and property damage caused by sudden and nonsudden accidental releases arising from the operation of the underground storage tank. The attached Schedule A lists the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located that are covered by the [insert "standby" where trust agreement is standby trust agreement] trust agreement.

[Whereas, the Grantor has elected to establish [insert either "a guarantee," "surety bond," or "letter of credit"] to provide all or part of such financial assurance for the underground storage tanks identified herein and is required to establish a standby trust fund able to accept payments from the instrument (This paragraph is only applicable to the standby trust agreement.);

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee;

Now, therefore, the Grantor and the Trustee agree as follows:

**Section 1. Definitions**

As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

## Section 2. Identification of the Financial Assurance Mechanism

This Agreement pertains to the [identify the financial assurance mechanism, either a guarantee, surety bond, or letter of credit, from which the standby trust fund is established to receive payments (This paragraph is only applicable to the standby trust agreement.)].

## Section 3. Establishment of Fund

The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of [implementing agency]. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. [The Fund is established initially as a standby to receive payments and shall not consist of any property.] Payments made by the provider of financial assurance pursuant to [the Director of the implementing agency's] instruction are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor as provider of financial assurance, any payments necessary to discharge any liability of the Grantor established by [the state implementing agency]

## Section 4. Payment for ["Corrective Action" and/or "Third-Party Liability Claims"]

The Trustee shall make payments from the Fund as [the Director of the implementing agency] shall direct, in writing, to provide for the payment of the costs of [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Trustee shall reimburse the Grantor, or other persons as specified by [the Director], from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as [the Director] shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as [the Director] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

## Section 5. Payments Comprising the Fund

Payments made to the Trustee for the Fund shall consist of cash and securities acceptable to the Trustee.

## Section 6. Trustee Management

The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiaries and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the tanks, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

## Section 7. Commingling and Investment

The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 *et seq.*, including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

## Section 8. Express Powers of Trustee

Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or

to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

#### Section 9. Taxes and Expenses

All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

#### Section 10. Advice of Counsel

The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

#### Section 11. Trustee Compensation

The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

#### Section 12. Successor Trustee

The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of

the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

#### Section 13. Instructions to the Trustee

All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by [the Director of the implementing agency] to the Trustee shall be in writing, signed by [the Director], and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or [the director] hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or [the Director], except as provided for herein.

#### Section 14. Amendment of Agreement

This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency] if the Grantor ceases to exist.

#### Section 15. Irrevocability and Termination

Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, or by the Trustee and [the Director of the implementing agency], if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

#### Section 16. Immunity and Indemnification

The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or [the Director of the implementing agency] issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

#### Section 17. Choice of Law

This Agreement shall be administered, construed, and enforced according to the laws of the state of [insert name of state], or the Comptroller of the Currency in the case of National Association banks.

#### Section 18. Interpretation

As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 40 CFR 280.103(b)(1) as such regulations were constituted on the date written above.

[Signature of Grantor]

[Name of the Grantor]

[Title]

Attest:

[Signature of Trustee]

[Name of the Trustee]

[Title]

[Seal]

[Signature of Witness]

[Name of the Witness]

[Title]

[Seal]

(2) The standby trust agreement, or trust agreement must be accompanied by a formal certification of acknowledgement similar to the following. State requirements may differ on the proper content of this acknowledgment.

State of \_\_\_\_\_  
 County of \_\_\_\_\_

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that she/he signed her/his name thereto by like order.  
 [Signature of Notary Public]  
 [Name of Notary Public]

(c) The Director of the implementing agency will instruct the trustee to refund the balance of the standby trust fund to the provider of financial assurance if the Director determines that no additional corrective action costs or third-party liability claims will occur as a result of a release covered by the financial assurance mechanism for which the standby trust fund was established.

(d) An owner or operator may establish one trust fund as the depository mechanism for all funds assured in compliance with this rule.

**§ 280.104 Local government bond rating test.**

(a) A general purpose local government owner or operator and/or local government serving as a guarantor may satisfy the requirements of § 280.93 by having a currently outstanding issue

or issues of general obligation bonds of \$1 million or more, excluding refunded obligations, with a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB. Where a local government has multiple outstanding issues, or where a local government's bonds are rated by both Moody's and Standard and Poor's, the lowest rating must be used to determine eligibility. Bonds that are backed by credit enhancement other than municipal bond insurance may not be considered in determining the amount of applicable bonds outstanding.

(b) A local government owner or operator or local government serving as a guarantor that is not a general-purpose local government and does not have the legal authority to issue general obligation bonds may satisfy the requirements of § 280.93 by having a currently outstanding issue or issues of revenue bonds of \$1 million or more, excluding refunded issues, and by also having a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB as the lowest rating for any rated revenue bond issued by the local government. Where bonds are rated by both Moody's and Standard & Poor's, the lower rating for each bond must be used to determine eligibility. Bonds that are backed by credit enhancement may not be considered in determining the amount of applicable bonds outstanding.

(c) The local government owner or operator and/or guarantor must maintain a copy of its bond rating published within the last 12 months by Moody's or Standard & Poor's.

(d) To demonstrate that it meets the local government bond rating test, the chief financial officer of a general purpose local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows:

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
				[Moody's or Standard & Poor's]

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of \$1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.104(d) as such

regulations were constituted on the date shown immediately below.

[Date]  
 [Signature]  
 [Name]  
 [Title]

(e) To demonstrate that it meets the local government bond rating test, the chief financial officer of local government owner or operator and/or guarantor other than a general purpose government must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or

guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s). This local government is not organized to provide general governmental services and does not have the legal authority under state law or constitutional provisions to issue general obligation debt.

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility

where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding

revenue bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows:

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
[Moody's or Standard & Poor's]				

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of \$1 million. All outstanding revenue bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. The revenue bonds listed are not backed by third-party credit enhancement or insured by a municipal bond insurance company. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.104(e) as such regulations were constituted on the date shown immediately below.

[Date]

[Signature]

[Name]

[Title]

(f) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator, and/or local government guarantor. If the Director finds, on the basis of such reports or other information, that the local government owner or operator, and/or guarantor, no longer meets the local government bond rating test requirements of § 280.104, the local government owner or operator must obtain alternative coverage within 30 days after notification of such a finding.

(g) If a local government owner or operator using the bond rating test to provide financial assurance finds that it no longer meets the bond rating test requirements, the local government owner or operator must obtain alternative coverage within 150 days of the change in status.

(h) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the bond rating test or within 30 days of notification by the Director of the

implementing agency that it no longer meets the requirements of the bond rating test, the owner or operator must notify the Director of such failure within 10 days.

**§ 280.105 Local government financial test.**

(a) A local government owner or operator may satisfy the requirements of § 280.93 by passing the financial test specified in this section. To be eligible to use the financial test, the local government owner or operator must have the ability and authority to assess and levy taxes or to freely establish fees and charges. To pass the local government financial test, the owner or operator must meet the criteria of paragraphs (b)(2) and (3) of this section based on year-end financial statements for the latest completed fiscal year.

(b)(1) The local government owner or operator must have the following information available, as shown in the year-end financial statements for the latest completed fiscal year:

(i) *Total revenues.* Consists of the sum of general fund operating and non-operating revenues including net local taxes, licenses and permits, fines and forfeitures, revenues from use of money and property, charges for services, investment earnings, sales (property, publications, etc.), intergovernmental revenues (restricted and unrestricted), and total revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity. For purposes of this test, the calculation of total revenues shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers), liquidation of investments, and issuance of debt.

(ii) *Total expenditures.* Consists of the sum of general fund operating and non-operating expenditures including public safety, public utilities, transportation, public works, environmental protection, cultural and recreational, community development, revenue sharing, employee benefits and compensation, office management, planning and zoning, capital projects, interest payments on debt, payments for

retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues. For purposes of this test, the calculation of total expenditures shall exclude all transfers between funds under the direct control of the local government using the financial test (interfund transfers).

(iii) *Local revenues.* Consists of total revenues (as defined in paragraph (b)(1)(i) of this section) minus the sum of all transfers from other governmental entities, including all monies received from Federal, state, or local government sources.

(iv) *Debt service.* Consists of the sum of all interest and principal payments on all long-term credit obligations and all interest-bearing short-term credit obligations. Includes interest and principal payments on general obligation bonds, revenue bonds, notes, mortgages, judgments, and interest bearing warrants. Excludes payments on non-interest-bearing short-term obligations, interfund obligations, amounts owed in a trust or agency capacity, and advances and contingent loans from other governments.

(v) *Total funds.* Consists of the sum of cash and investment securities from all funds, including general, enterprise, debt service, capital projects, and special revenue funds, but excluding employee retirement funds, at the end of the local government's financial reporting year. Includes Federal securities, Federal agency securities, state and local government securities, and other securities such as bonds, notes and mortgages. For purposes of this test, the calculation of total funds shall exclude agency funds, private trust funds, accounts receivable, value of real property, and other non-security assets.

(vi) *Population* consists of the number of people in the area served by the local government.

(2) The local government's year-end financial statements, if independently audited, cannot include an adverse auditor's opinion or a disclaimer of opinion. The local government cannot have outstanding issues of general obligation or revenue bonds that are rated as less than investment grade.



(3) The local government owner or operator must have a letter signed by the chief financial officer worded as specified in paragraph (c) of this section.

(c) To demonstrate that it meets the financial test under paragraph (b) of this section, the chief financial officer of the local government owner or operator, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter From Chief Financial Officer

I am the chief financial officer of [insert: name and address of the owner or operator]. This letter is in support of the use of the local government financial test to demonstrate financial responsibility for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage"] caused by [insert: "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating [an] underground storage tank[s].

Underground storage tanks at the following facilities are assured by this financial test [List for each facility: the name and address of the facility where tanks assured by this financial test are located. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding state requirements.]

This owner or operator has not received an adverse opinion, or a disclaimer of opinion from an independent auditor on its financial statements for the latest completed fiscal year. Any outstanding issues of general obligation or revenue bonds, if rated, have a Moody's rating of Aaa, Aa, A, or Baa or a Standard and Poor's rating of AAA, AA, A, or BBB; if rated by both firms, the bonds have a Moody's rating of Aaa, Aa, A, or Baa and a Standard and Poor's rating of AAA, AA, A, or BBB.

Worksheet for Municipal Financial Test

Part I: Basic Information

1. Total Revenues
  - a. Revenues (dollars)

Value of revenues excludes liquidation of investments and issuance of debt. Value includes all general fund operating and non-operating revenues, as well as all revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity.

- b. Subtract interfund transfers (dollars)
- c. Total Revenues (dollars)

2. Total Expenditures

- a. Expenditures (dollars)

Value consists of the sum of general fund operating and non-operating expenditures including interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues.

- b. Subtract interfund transfers (dollars)
- c. Total Expenditures (dollars)

3. Local Revenues

- a. Total Revenues (from 1c) (dollars)
- b. Subtract total intergovernmental transfers (dollars)
- c. Local Revenues (dollars)

4. Debt Service

- a. Interest and fiscal charges (dollars)
- b. Add debt retirement (dollars)
- c. Total Debt Service (dollars)

5. Total Funds (Dollars) (Sum of amounts held as cash and investment securities from all funds, excluding amounts held for employee retirement funds, agency funds, and trust funds)

6. Population (Persons)

Part II: Application of Test

7. Total Revenues to Population

- a. Total Revenues (from 1c)
- b. Population (from 6)
- c. Divide 7a by 7b
- d. Subtract 417
- e. Divide by 5,212
- f. Multiply by 4.095

8. Total Expenses to Population

- a. Total Expenses (from 2c)
- b. Population (from 6)
- c. Divide 8a by 8b
- d. Subtract 524
- e. Divide by 5,401
- f. Multiply by 4.095

9. Local Revenues to Total Revenues

- a. Local Revenues (from 3c)
- b. Total Revenues (from 1c)
- c. Divide 9a by 9b
- d. Subtract .695
- e. Divide by .205
- f. Multiply by 2.840

10. Debt Service to Population

- a. Debt Service (from 4c)
- b. Population (from 6)
- c. Divide 10a by 10b
- d. Subtract 51
- e. Divide by 1,038
- f. Multiply by -1.866

11. Debt Service to Total Revenues

- a. Debt Service (from 4c)
- b. Total Revenues (from 1c)
- c. Divide 11a by 11b
- d. Subtract .068
- e. Divide by .259
- f. Multiply by -3.533

12. Total Revenues to Total Expenses

- a. Total Revenues (from 1c)
- b. Total Expenses (from 2c)
- c. Divide 12a by 12b
- d. Subtract .910
- e. Divide by .899
- f. Multiply by 3.458

13. Funds Balance to Total Revenues

- a. Total Funds (from 5)
- b. Total Revenues (from 1c)
- c. Divide 13a by 13b
- d. Subtract .891
- e. Divide by 9.156
- f. Multiply by 3.270

14. Funds Balance to Total Expenses

- a. Total Funds (from 5)
- b. Total Expenses (from 2c)
- c. Divide 14a by 14b
- d. Subtract .866
- e. Divide by 6.409
- f. Multiply by 3.270

15. Total Funds to Population

- a. Total Funds (from 5)
- b. Population (from 6)
- c. Divide 15a by 15b
- d. Subtract 270
- e. Divide by 4,548
- f. Multiply by 1.866

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937

I hereby certify that the financial index shown on line 16 of the worksheet is greater than zero and that

the wording of this letter is identical to the wording specified in 40 CFR 280.105(c) as such regulations were constituted on the date shown immediately below.

[Date]

[Signature]

[Name]

[Title]

(d) If a local government owner or operator using the test to provide financial assurance finds that it no longer meets the requirements of the financial test based on the year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(e) The Director of the implementing agency may require reports of financial condition at any time from the local government owner or operator. If the Director finds, on the basis of such reports or other information, that the local government owner or operator no longer meets the financial test requirements of § 280.105(b) and (c), the owner or operator must obtain alternate coverage within 30 days after notification of such a finding.

(f) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the financial test based on the year-end financial statements or within 30 days of notification by the Director of the implementing agency that it no longer meets the requirements of the financial test, the owner or operator must notify the Director of such failure within 10 days.

#### **§ 280.106 Local government guarantee.**

(a) A local government owner or operator may satisfy the requirements of § 280.93 by obtaining a guarantee that conforms to the requirements of this section. The guarantor must be either the state in which the local government owner or operator is located or a local government having a "substantial governmental relationship" with the owner and operator and issuing the guarantee as an act incident to that relationship. A local government acting as the guarantor must:

(1) Demonstrate that it meets the bond rating test requirement of § 280.104 and deliver a copy of the chief financial officer's letter as contained in § 280.104(d) and (e) to the local government owner or operator; or

(2) Demonstrate that it meets the worksheet test requirements of § 280.105 and deliver a copy of the chief financial officer's letter as contained in

§ 280.105(c) to the local government owner or operator; or

(3) Demonstrate that it meets the local government fund requirements of § 280.107(a), (b), or (c) and deliver a copy of the chief financial officer's letter as contained in § 280.107 to the local government owner or operator.

(b) If the local government guarantor is unable to demonstrate financial assurance under any of §§ 280.104, 280.105, or 280.107(a), (b), or (c), at the end of the financial reporting year, the guarantor shall send by certified mail, before cancellation or non-renewal of the guarantee, notice to the owner or operator. The guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.114(e).

(c) The guarantee agreement must be worded as specified in paragraph (d) or (e) of this section, depending on which of the following alternative guarantee arrangements is selected:

(1) If, in the default or incapacity of the owner or operator, the guarantor guarantees to fund a standby trust as directed by the Director of the implementing agency, the guarantee shall be worded as specified in paragraph (d) of this section.

(2) If, in the default or incapacity of the owner or operator, the guarantor guarantees to make payments as directed by the Director of the implementing agency for taking corrective action or compensating third parties for bodily injury and property damage, the guarantee shall be worded as specified in paragraph (e) of this section.

(d) If the guarantor is a state, the local government guarantee with standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

#### **Local Government Guarantee With Standby Trust Made by a State**

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

#### **Recitals**

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the

tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions

of 40 CFR 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(7) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(8) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator],

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.106(d)

as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]  
[Authorized signature for guarantor]  
[Name of person signing]  
[Title of person signing]  
Signature of witness or notary:

If the guarantor is a local government, the local government guarantee with standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

#### Local Government Guarantee With Standby Trust Made by a Local Government

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

#### Recitals

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR 280.104, the local government financial test requirements of 40 CFR 280.105, or the local government fund under 40 CFR 280.107(a), 280.107(b), or 280.107(c)].

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 and the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental Releases" or "nonsudden accidental releases" or "accidental Releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local

government owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.112 to satisfy such judgment(s), award(s), or settlement agreement(s) up to the limits of coverage specified above.

(4) Guarantor agrees that, if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any

obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.106(d) as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

(e) If the guarantor is a state, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are

to be replaced with relevant information and the brackets deleted:

Local Government Guarantee Without Standby Trust Made by a State

Guarantee made this [date] by [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

Recitals

(1) Guarantor is a state.

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director] shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part

280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(5) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(6) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

(7) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(8) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.106(e) as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

If the guarantor is a local government, the local government guarantee without standby trust must be worded exactly as follows, except that instructions in brackets are to be replaced with relevant information and the brackets deleted:

**Local Government Guarantee Without Standby Trust Made by a Local Government**

Guarantee made this [date] by [name of guaranteeing entity], a local government organized under the laws of [name of state], herein referred to as guarantor, to [the state implementing agency] and to any and all third parties, and obliges, on behalf of [local government owner or operator].

**Recitals**

(1) Guarantor meets or exceeds [select one: the local government bond rating test requirements of 40 CFR 280.104, the local government financial test requirements of 40 CFR 280.105, the local government fund under 40 CFR 280.107(a), 280.107(b), or 280.107(c)].

(2) [Local government owner or operator] owns or operates the following underground storage tank(s) covered by this guarantee: [List the number of tanks at each facility and the name(s) and

address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR part 280 or the corresponding state requirement, and the name and address of the facility.] This guarantee satisfies 40 CFR part 280, subpart H requirements for assuring funding for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the above-identified underground storage tank(s) in the amount of [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate.

(3) Incident to our substantial governmental relationship with [local government owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties and obliges that:

In the event that [local government owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon written instructions from the [Director] shall make funds available to pay for corrective actions and compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [local government owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall make funds available to pay for corrective actions in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by ["sudden" and/or "nonsudden"] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise

from such injury or damage, the guarantor, upon written instructions from the [Director], shall make funds available to compensate third parties for bodily injury and property damage in an amount not to exceed the coverage limits specified above.

(4) Guarantor agrees that if at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet or exceed the requirements of the financial responsibility mechanism specified in paragraph (1), guarantor shall send within 120 days of such failure, by certified mail, notice to [local government owner or operator], as evidenced by the return receipt.

(5) Guarantor agrees to notify [owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alteration of any obligation of [owner or operator] pursuant to 40 CFR part 280.

(7) Guarantor agrees to remain bound under this guarantee for so long as [local government owner or operator] must comply with the applicable financial responsibility requirements of 40 CFR part 280, subpart H for the above identified tank(s), except that guarantor may cancel this guarantee by sending notice by certified mail to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by [owner or operator], as evidenced by the return receipt. If notified of a probable release, the guarantor agrees to remain bound to the terms of this guarantee for all charges arising from the release, up to the coverage limits specified above, notwithstanding the cancellation of the guarantee with respect to future releases.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [local government owner or operator] under a workers' compensation disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert: local government owner or operator] arising from, and in the course of, employment by [insert: local government owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care,

custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily damage or property damage for which [insert: owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

(9) Guarantor expressly waives notice of acceptance of this guarantee by [the implementing agency], by any or all third parties, or by [local government owner or operator],

I hereby certify that the wording of this guarantee is identical to the wording specified in 40 CFR 280.106(e) as such regulations were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

#### § 280.107 Local government fund.

A local government owner or operator may satisfy the requirements of § 280.93 by establishing a dedicated fund account that conforms to the requirements of this section. Except as specified in paragraph (b) of this section, a dedicated fund may not be commingled with other funds or otherwise used in normal operations. A dedicated fund will be considered eligible if it meets one of the following requirements:

(a) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks and is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage; or

(b) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance, or order as a contingency fund for general emergencies, including taking corrective action and compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks, and is funded for five times the full amount of coverage required under

§ 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage. If the fund is funded for less than five times the amount of coverage required under § 280.93, the amount of financial responsibility demonstrated by the fund may not exceed one-fifth the amount in the fund; or

(c) The fund is dedicated by state constitutional provision, or local government statute, charter, ordinance or order to pay for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks. A payment is made to the fund once every year for seven years until the fund is fully-funded. This seven year period is hereafter referred to as the “pay-in-period.” The amount of each payment must be determined by this formula:

$$\frac{TF - CF}{Y}$$

Y

Where TF is the total required financial assurance for the owner or operator, CF is the current amount in the fund, and Y is the number of years remaining in the pay-in-period; and,

(1) The local government owner or operator has available bonding authority, approved through voter referendum (if such approval is necessary prior to the issuance of bonds), for an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund. This bonding authority shall be available for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks; or

(2) The local government owner or operator has a letter signed by the appropriate state attorney general stating that the use of the bonding authority will not increase the local government's debt beyond the legal debt ceilings established by the relevant state laws. The letter must also state that prior voter approval is not necessary before use of the bonding authority.

(d) To demonstrate that it meets the requirements of the local government fund, the chief financial officer of the local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the local government fund mechanism to demonstrate financial responsibility for [insert: “taking corrective action” and/or “compensating third parties for bodily injury and property damage”] caused by [insert: “sudden accidental releases” or “nonsudden accidental releases” or “accidental releases”] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this local government fund mechanism: [List for each facility: The name and address of the facility where tanks are assured by the local government fund].

[Insert: “The local government fund is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage.” or “The local government fund is funded for five times the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanisms(s) that provide the remaining coverage,” or “A payment is made to the fund once every year for seven years until the fund is fully-funded and [name of local government owner or operator] has available bonding authority, approved through voter referendum, of an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund” or “A payment is made to the fund once every year for seven years until the fund is fully-funded and I have attached a letter signed by the State Attorney General stating that (1) the use of the bonding authority will not increase the local government's debt beyond the legal debt ceilings established by the relevant state laws and (2) that prior voter approval is not necessary before use of the bonding authority”].

The details of the local government fund are as follows:

Amount in Fund (market value of fund at close of last fiscal year):

[If fund balance is incrementally funded as specified in § 280.107(c), insert:

Amount added to fund in the most recently completed fiscal year:

Number of years remaining in the pay-in-period: \_\_\_\_\_]

A copy of the state constitutional provision, or local government statute, charter, ordinance or order dedicating the fund is attached.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.107(d) as such regulations were constituted on the date shown immediately below.

[Date]

[Signature]

[Name]

[Title]

**§ 280.108 Substitution of financial assurance mechanisms by owner or operator.**

(a) An owner or operator may substitute any alternate financial assurance mechanisms as specified in this subpart, provided that at all times he maintains an effective financial assurance mechanism or combination of mechanisms that satisfies the requirements of § 280.93.

(b) After obtaining alternate financial assurance as specified in this subpart, an owner or operator may cancel a financial assurance mechanism by providing notice to the provider of financial assurance.

**§ 280.109 Cancellation or nonrenewal by a provider of financial assurance.**

(a) Except as otherwise provided, a provider of financial assurance may cancel or fail to renew an assurance mechanism by sending a notice of termination by certified mail to the owner or operator.

(1) Termination of a local government guarantee, a guarantee, a surety bond, or a letter of credit may not occur until 120 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(2) Termination of insurance or risk retention coverage, except for non-payment or misrepresentation by the insured, or state-funded assurance may not occur until 60 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt. Termination for non-payment of premium or misrepresentation by the insured may not occur until a minimum of 10 days after the date on which the owner or operator receives the notice of termination, as evidenced by the return receipt.

(b) If a provider of financial responsibility cancels or fails to renew for reasons other than incapacity of the

provider as specified in § 280.114, the owner or operator must obtain alternate coverage as specified in this section within 60 days after receipt of the notice of termination. If the owner or operator fails to obtain alternate coverage within 60 days after receipt of the notice of termination, the owner or operator must notify the Director of the implementing agency of such failure and submit:

(1) The name and address of the provider of financial assurance;

(2) The effective date of termination; and

(3) The evidence of the financial assistance mechanism subject to the termination maintained in accordance with § 280.111(b).

**§ 280.110 Reporting by owner or operator.**

(a) An owner or operator must submit the appropriate forms listed in § 280.111(b) documenting current evidence of financial responsibility to the Director of the implementing agency:

(1) Within 30 days after the owner or operator identifies a release from an underground storage tank required to be reported under § 280.53 or § 280.61;

(2) If the owner or operator fails to obtain alternate coverage as required by this subpart, within 30 days after the owner or operator receives notice of:

(i) Commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a provider of financial assurance as a debtor;

(ii) Suspension or revocation of the authority of a provider of financial assurance to issue a financial assurance mechanism;

(iii) Failure of a guarantor to meet the requirements of the financial test;

(iv) Other incapacity of a provider of financial assurance; or

(3) As required by §§ 280.95(g) and 280.109(b).

(b) An owner or operator must certify compliance with the financial responsibility requirements of this part as specified in the new tank notification form when notifying the appropriate state or local agency of the installation of a new underground storage tank under § 280.22.

(c) The Director of the Implementing Agency may require an owner or operator to submit evidence of financial assurance as described in § 280.111(b) or other information relevant to compliance with this subpart at any time.

**§ 280.111 Recordkeeping.**

(a) Owners or operators must maintain evidence of all financial assurance mechanisms used to

demonstrate financial responsibility under this subpart for an underground storage tank until released from the requirements of this subpart under § 208.113. An owner or operator must maintain such evidence at the underground storage tank site or the owner's or operator's place of work. Records maintained off-site must be made available upon request of the implementing agency.

(b) An owner or operator must maintain the following types of evidence of financial responsibility:

(1) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.100 or § 280.102 or §§ 280.104 through 280.107 must maintain a copy of the instrument worded as specified.

(2) An owner or operator using a financial test or guarantee, or a local government financial test or a local government guarantee supported by the local government financial test must maintain a copy of the chief financial officer's letter based on year-end financial statements for the most recent completed financial reporting year. Such evidence must be on file no later than 120 days after the close of the financial reporting year.

(3) An owner or operator using a guarantee, surety bond, or letter of credit must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(4) A local government owner or operator using a local government guarantee under § 280.106(d) must maintain a copy of the signed standby trust fund agreement and copies of any amendments to the agreement.

(5) A local government owner or operator using the local government bond rating test under § 280.104 must maintain a copy of its bond rating published within the last twelve months by Moody's or Standard & Poor's.

(6) A local government owner or operator using the local government guarantee under § 280.106, where the guarantor's demonstration of financial responsibility relies on the bond rating test under § 280.104 must maintain a copy of the guarantor's bond rating published within the last twelve months by Moody's or Standard & Poor's.

(7) An owner or operator using an insurance policy or risk retention group coverage must maintain a copy of the signed insurance policy or risk retention group coverage policy, with the endorsement or certificate of insurance and any amendments to the agreements.

(8) An owner or operator covered by a state fund or other state assurance must maintain on file a copy of any

evidence of coverage supplied by or required by the state under § 280.101(d).

(9) An owner or operator using a local government fund under § 280.107 must maintain the following documents:

(i) A copy of the state constitutional provision or local government statute, charter, ordinance, or order dedicating the fund; and

(ii) Year-end financial statements for the most recent completed financial reporting year showing the amount in the fund. If the fund is established under § 280.107(c) using incremental funding backed by bonding authority, the financial statements must show the previous year's balance, the amount of funding during the year, and the closing balance in the fund.

(iii) If the fund is established under § 280.107(c) using incremental funding backed by bonding authority, the owner or operator must also maintain documentation of the required bonding authority, including either the results of a voter referendum (under § 280.107(c)(1)), or attestation by the State Attorney General as specified under § 280.107(c)(2).

(10) A local government owner or operator using the local government guarantee supported by the local government fund must maintain a copy of the guarantor's year-end financial statements for the most recent completed financial reporting year showing the amount of the fund.

(11)(i) An owner or operator using an assurance mechanism specified in §§ 280.95 through 280.107 must maintain an updated copy of a certification of financial responsibility worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

**Certification of Financial Responsibility**

[Owner or operator] hereby certifies that it is in compliance with the requirements of subpart H of 40 CFR part 280.

The financial assurance mechanism(s) used to demonstrate financial responsibility under subpart H of 40 CFR part 280 is (are) as follows:

[For each mechanism, list the type of mechanism, name of issuer, mechanism number (if applicable), amount of coverage, effective period of coverage and whether the mechanism covers "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases."]

[Signature of owner or operator]

[Name of owner or operator]

[Title]

[Date]

[Signature of witness or notary]

[Name of witness or notary]

[Date]

(ii) The owner or operator must update this certification whenever the financial assurance mechanism(s) used to demonstrate financial responsibility change(s).

**§ 280.112 Drawing on financial assurance mechanisms.**

(a) Except as specified in paragraph (d) of this section, the Director of the implementing agency shall require the guarantor, surety, or institution issuing a letter of credit to place the amount of funds stipulated by the Director, up to the limit of funds provided by the financial assurance mechanism, into the standby trust if:

(1)(i) The owner or operator fails to establish alternate financial assurance within 60 days after receiving notice of cancellation of the guarantee, surety bond, letter of credit, or, as applicable, other financial assurance mechanism; and

(ii) The Director determines or suspects that a release from an underground storage tank covered by the mechanism has occurred and so notifies the owner or operator or the owner or operator has notified the Director pursuant to subparts E or F of a release from an underground storage tank covered by the mechanism; or

(2) The conditions of paragraph (b)(1) or (b)(2)(i) or (ii) of this section are satisfied.

(b) The Director of the implementing agency may draw on a standby trust fund when:

(1) The Director makes a final determination that a release has occurred and immediate or long-term corrective action for the release is needed, and the owner or operator, after appropriate notice and opportunity to comply, has not conducted corrective action as required under subpart F of this part; or

(2) The Director has received either:

(i) Certification from the owner or operator and the third-party liability claimant(s) and from attorneys representing the owner or operator and the third-party liability claimant(s) that a third-party liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

**Certification of Valid Claim**

The undersigned, as principals and as legal representatives of [insert: owner or

operator] and [insert: name and address of third-party claimant], hereby certify that the claim of bodily injury [and/or] property damage caused by an accidental release arising from operating [owner's or operator's] underground storage tank should be paid in the amount of \$[ ].

[Signatures]

Owner or Operator

Attorney for Owner or Operator

(Notary)

Date

[Signatures]

Claimant(s)

Attorney(s) for Claimant(s)

(Notary)

Date

or

(ii) A valid final court order establishing a judgment against the owner or operator for bodily injury or property damage caused by an accidental release from an underground storage tank covered by financial assurance under this subpart and the Director determines that the owner or operator has not satisfied the judgment.

(c) If the Director of the implementing agency determines that the amount of corrective action costs and third-party liability claims eligible for payment under paragraph (b) of this section may exceed the balance of the standby trust fund and the obligation of the provider of financial assurance, the first priority for payment shall be corrective action costs necessary to protect human health and the environment. The Director shall pay third-party liability claims in the order in which the Director receives certifications under paragraph (b)(2)(i) of this section, and valid court orders under paragraph (b)(2)(ii) of this section.

(d) A governmental entity acting as guarantor under § 280.106(e), the local government guarantee without standby trust, shall make payments as directed by the Director under the circumstances described in § 280.112(a), (b), and (c).

**§ 280.113 Release from the requirements.**

An owner or operator is no longer required to maintain financial responsibility under this subpart for an underground storage tank after the tank has been permanently closed or undergoes a change-in-service or, if corrective action is required, after corrective action has been completed and the tank has been permanently closed or undergoes a change-in-service as required by subpart G of this part.

**§ 280.114 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.**

(a) Within 10 days after commencement of a voluntary or



involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming an owner or operator as debtor, the owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(b) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing financial assurance as debtor, such guarantor must notify the owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.96.

(c) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a local government owner or operator as debtor, the local government owner or operator must notify the Director of the implementing agency by certified mail of such commencement and submit the appropriate forms listed in § 280.111(b) documenting current financial responsibility.

(d) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming a guarantor providing a local government financial assurance as debtor, such guarantor must notify the local government owner or operator by certified mail of such commencement as required under the terms of the guarantee specified in § 280.106.

(e) An owner or operator who obtains financial assurance by a mechanism other than the financial test of self-insurance will be deemed to be without the required financial assurance in the event of a bankruptcy or incapacity of its provider of financial assurance, or a suspension or revocation of the authority of the provider of financial assurance to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, letter of credit, or state-required mechanism. The owner or operator must obtain alternate financial assurance as specified in this subpart within 30 days after receiving notice of such an event. If the owner or operator does not obtain alternate coverage within 30 days after such notification, he must notify the Director of the implementing agency.

(f) Within 30 days after receipt of notification that a state fund or other state assurance has become incapable of paying for assured corrective action or third-party compensation costs, the

owner or operator must obtain alternate financial assurance.

**§ 280.115 Replenishment of guarantees, letters of credit, or surety bonds.**

(a) If at any time after a standby trust is funded upon the instruction of the Director of the implementing agency with funds drawn from a guarantee, local government guarantee with standby trust, letter of credit, or surety bond, and the amount in the standby trust is reduced below the full amount of coverage required, the owner or operator shall by the anniversary date of the financial mechanism from which the funds were drawn:

(1) Replenish the value of financial assurance to equal the full amount of coverage required; or

(2) Acquire another financial assurance mechanism for the amount by which funds in the standby trust have been reduced.

(b) For purposes of this section, the full amount of coverage required is the amount of coverage to be provided by § 280.93. If a combination of mechanisms was used to provide the assurance funds which were drawn upon, replenishment shall occur by the earliest anniversary date among the mechanisms.

**§ 280.116 Suspension of enforcement. [Reserved]**

**Subpart I—Lender Liability**

**§ 280.200 Definitions.**

(a) UST technical standards, as used in this subpart, refers to the UST preventative and operating requirements under subparts B, C, D, G, J, and K of this part and § 280.50.

(b) *Petroleum production, refining, and marketing.* (1) *Petroleum production* means the production of crude oil or other forms of petroleum (as defined in § 280.12) as well as the production of petroleum products from purchased materials.

(2) *Petroleum refining* means the cracking, distillation, separation, conversion, upgrading, and finishing of refined petroleum or petroleum products.

(3) *Petroleum marketing* means the distribution, transfer, or sale of petroleum or petroleum products for wholesale or retail purposes.

(c) *Indicia of ownership* means evidence of a secured interest, evidence of an interest in a security interest, or evidence of an interest in real or personal property securing a loan or other obligation, including any legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. Evidence of such interests

include, but are not limited to, mortgages, deeds of trust, liens, surety bonds and guarantees of obligations, title held pursuant to a lease financing transaction in which the lessor does not select initially the leased property (hereinafter “lease financing transaction”), and legal or equitable title obtained pursuant to foreclosure. Evidence of such interests also includes assignments, pledges, or other rights to or other forms of encumbrance against property that are held primarily to protect a security interest. A person is not required to hold title or a security interest in order to maintain indicia of ownership.

(d) A *holder* is a person who, upon the effective date of this regulation or in the future, maintains indicia of ownership (as defined in § 280.200(c)) primarily to protect a security interest (as defined in § 280.200(f)(1)) in a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located. A holder includes the initial holder (such as a loan originator); any subsequent holder (such as a successor-in-interest or subsequent purchaser of the security interest on the secondary market); a guarantor of an obligation, surety, or any other person who holds ownership indicia primarily to protect a security interest; or a receiver or other person who acts on behalf or for the benefit of a holder.

(e) A *borrower, debtor, or obligor* is a person whose UST or UST system or facility or property on which the UST or UST system is located is encumbered by a security interest. These terms may be used interchangeably.

(f) *Primarily to protect a security interest* means that the holder's indicia of ownership are held primarily for the purpose of securing payment or performance of an obligation.

(1) *Security interest* means an interest in a petroleum UST or UST system or in the facility or property on which a petroleum UST or UST system is located, created or established for the purpose of securing a loan or other obligation. Security interests include but are not limited to mortgages, deeds of trusts, liens, and title pursuant to lease financing transactions. Security interests may also arise from transactions such as sale and leasebacks, conditional sales, installment sales, trust receipt transactions, certain assignments, factoring agreements, accounts receivable financing arrangements, and consignments, if the transaction creates or establishes an interest in an UST or UST system or in the facility or property on which the UST or UST system is located, for the

purpose of securing a loan or other obligation.

(2) *Primarily to protect a security interest*, as used in this subpart, does not include indicia of ownership held primarily for investment purposes, nor ownership indicia held primarily for purposes other than as protection for a security interest. A holder may have other, secondary reasons for maintaining indicia of ownership, but the primary reason why any ownership indicia are held must be as protection for a security interest.

(g) *Operation* means, for purposes of this subpart, the use, storage, filling, or dispensing of petroleum contained in an UST or UST system.

#### **§ 280.210 Participation in management.**

The term “participating in the management of an UST or UST system” means that, subsequent to the effective date of this subpart, December 6, 1995, the holder is engaging in decisionmaking control of, or activities related to, operation of the UST or UST system, as defined herein.

(a) *Actions that are participation in management.* (1) Participation in the management of an UST or UST system means, for purposes of this subpart, actual participation by the holder in the management or control of decisionmaking related to the operation of an UST or UST system. Participation in management does not include the mere capacity or ability to influence or the unexercised right to control UST or UST system operations. A holder is participating in the management of the UST or UST system only if the holder either:

(i) Exercises decisionmaking control over the operational (as opposed to financial or administrative) aspects of the UST or UST system, such that the holder has undertaken responsibility for all or substantially all of the management of the UST or UST system; or

(ii) Exercises control at a level comparable to that of a manager of the borrower's enterprise, such that the holder has assumed or manifested responsibility for the overall management of the enterprise encompassing the day-to-day decisionmaking of the enterprise with respect to all, or substantially all, of the operational (as opposed to financial or administrative) aspects of the enterprise.

(2) Operational aspects of the enterprise relate to the use, storage, filling, or dispensing of petroleum contained in an UST or UST system, and include functions such as that of a facility or plant manager, operations manager, chief operating officer, or chief

executive officer. Financial or administrative aspects include functions such as that of a credit manager, accounts payable/receivable manager, personnel manager, controller, chief financial officer, or similar functions. Operational aspects of the enterprise do not include the financial or administrative aspects of the enterprise, or actions associated with environmental compliance, or actions undertaken voluntarily to protect the environment in accordance with applicable requirements in this part or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

(b) *Actions that are not participation in management pre-foreclosure.* (1) *Actions at the inception of the loan or other transaction.* No act or omission prior to the time that indicia of ownership are held primarily to protect a security interest constitutes evidence of participation in management within the meaning of this subpart. A prospective holder who undertakes or requires an environmental investigation (which could include a site assessment, inspection, and/or audit) of the UST or UST system or facility or property on which the UST or UST system is located (in which indicia of ownership are to be held), or requires a prospective borrower to clean up contamination from the UST or UST system or to comply or come into compliance (whether prior or subsequent to the time that indicia of ownership are held primarily to protect a security interest) with any applicable law or regulation, is not by such action considered to be participating in the management of the UST or UST system or facility or property on which the UST or UST system is located.

(2) *Loan policing and work out.* Actions that are consistent with holding ownership indicia primarily to protect a security interest do not constitute participation in management for purposes of this subpart. The authority for the holder to take such actions may, but need not, be contained in contractual or other documents specifying requirements for financial, environmental, and other warranties, covenants, conditions, representations or promises from the borrower. Loan policing and work out activities cover and include all such activities up to foreclosure, exclusive of any activities that constitute participation in management.

(i) *Policing the security interest or loan.* (A) A holder who engages in policing activities prior to foreclosure

will remain within the exemption provided that the holder does not together with other actions participate in the management of the UST or UST system as provided in § 280.210(a). Such policing actions include, but are not limited to, requiring the borrower to clean up contamination from the UST or UST system during the term of the security interest; requiring the borrower to comply or come into compliance with applicable federal, state, and local environmental and other laws, rules, and regulations during the term of the security interest; securing or exercising authority to monitor or inspect the UST or UST system or facility or property on which the UST or UST system is located (including on-site inspections) in which indicia of ownership are maintained, or the borrower's business or financial condition during the term of the security interest; or taking other actions to adequately police the loan or security interest (such as requiring a borrower to comply with any warranties, covenants, conditions, representations, or promises from the borrower).

(B) Policing activities also include undertaking by the holder of UST environmental compliance actions and voluntary environmental actions taken in compliance with this part, provided that the holder does not otherwise participate in the management or daily operation of the UST or UST system as provided in § 280.210(a) and § 280.230. Such allowable actions include, but are not limited to, release detection and release reporting, release response and corrective action, temporary or permanent closure of an UST or UST system, UST upgrading or replacement, and maintenance of corrosion protection. A holder who undertakes these actions must do so in compliance with the applicable requirements in this part or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281. A holder may directly oversee these environmental compliance actions and voluntary environmental actions, and directly hire contractors to perform the work, and is not by such action considered to be participating in the management of the UST or UST system.

(ii) *Loan work out.* A holder who engages in work out activities prior to foreclosure will remain within the exemption provided that the holder does not together with other actions participate in the management of the UST or UST system as provided in § 280.210(a). For purposes of this rule, “work out” refers to those actions by which a holder, at any time prior to

foreclosure, seeks to prevent, cure, or mitigate a default by the borrower or obligor; or to preserve, or prevent the diminution of, the value of the security. Work out activities include, but are not limited to, restructuring or renegotiating the terms of the security interest; requiring payment of additional rent or interest; exercising forbearance; requiring or exercising rights pursuant to an assignment of accounts or other amounts owing to an obligor; requiring or exercising rights pursuant to an escrow agreement pertaining to amounts owing to an obligor; providing specific or general financial or other advice, suggestions, counseling, or guidance; and exercising any right or remedy the holder is entitled to by law or under any warranties, covenants, conditions, representations, or promises from the borrower.

(c) Foreclosure on an UST or UST system or facility or property on which an UST or UST system is located, and participation in management activities post-foreclosure.

(1) *Foreclosure.* (i) Indicia of ownership that are held primarily to protect a security interest include legal or equitable title or deed to real or personal property acquired through or incident to foreclosure. For purposes of this subpart, the term "foreclosure" means that legal, marketable or equitable title or deed has been issued, approved, and recorded, and that the holder has obtained access to the UST, UST system, UST facility, and property on which the UST or UST system is located, provided that the holder acted diligently to acquire marketable title or deed and to gain access to the UST, UST system, UST facility, and property on which the UST or UST system is located. The indicia of ownership held after foreclosure continue to be maintained primarily as protection for a security interest provided that the holder undertakes to sell, re-lease an UST or UST system or facility or property on which the UST or UST system is located, held pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), or otherwise divest itself of the UST or UST system or facility or property on which the UST or UST system is located, in a reasonably expeditious manner, using whatever commercially reasonable means are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, taking all facts and circumstances into consideration, and provided that the holder does not participate in management (as defined

in § 280.210(a)) prior to or after foreclosure.

(ii) For purposes of establishing that a holder is seeking to sell, re-lease pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), or divest in a reasonably expeditious manner an UST or UST system or facility or property on which the UST or UST system is located, the holder may use whatever commercially reasonable means as are relevant or appropriate with respect to the UST or UST system or facility or property on which the UST or UST system is located, or may employ the means specified in § 280.210(c)(2). A holder that outbids, rejects, or fails to act upon a written *bona fide*, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located, as provided in § 280.210(c)(2), is not considered to hold indicia of ownership primarily to protect a security interest.

(2) Holding foreclosed property for disposition and liquidation. A holder, who does not participate in management prior to or after foreclosure, may sell, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), an UST or UST system or facility or property on which the UST or UST system is located, liquidate, wind up operations, and take measures, prior to sale or other disposition, to preserve, protect, or prepare the secured UST or UST system or facility or property on which the UST or UST system is located. A holder may also arrange for an existing or new operator to continue or initiate operation of the UST or UST system. The holder may conduct these activities without voiding the security interest exemption, subject to the requirements of this subpart.

(i) A holder establishes that the ownership indicia maintained after foreclosure continue to be held primarily to protect a security interest by, within 12 months following foreclosure, listing the UST or UST system or the facility or property on which the UST or UST system is located, with a broker, dealer, or agent who deals with the type of property in question, or by advertising the UST or UST system or facility or property on which the UST or UST system is located, as being for sale or disposition on at least a monthly basis in either a real estate publication or a trade or other publication suitable for the UST or UST system or facility or property on which the UST or UST system is located, or a newspaper of general circulation

(defined as one with a circulation over 10,000, or one suitable under any applicable federal, state, or local rules of court for publication required by court order or rules of civil procedure) covering the location of the UST or UST system or facility or property on which the UST or UST system is located. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date that the marketable title or deed has been issued, approved and recorded, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder acted diligently to acquire marketable title or deed and to obtain access to the UST, UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed or to gain access to the UST or UST system, the 12-month period begins to run from December 6, 1995 or from the date on which the holder first acquires either title to or possession of the secured UST or UST system, or facility or property on which the UST or UST system is located, whichever is later.

(ii) A holder that outbids, rejects, or fails to act upon an offer of fair consideration for the UST or UST system or the facility or property on which the UST or UST system is located, establishes by such outbidding, rejection, or failure to act, that the ownership indicia in the secured UST or UST system or facility or property on which the UST or UST system is located are not held primarily to protect the security interest, unless the holder is required, in order to avoid liability under federal or state law, to make a higher bid, to obtain a higher offer, or to seek or obtain an offer in a different manner.

(A) Fair consideration, in the case of a holder maintaining indicia of ownership primarily to protect a senior security interest in the UST or UST system or facility or property on which the UST or UST system is located, is the value of the security interest as defined in this section. The value of the security interest includes all debt and costs incurred by the security interest holder, and is calculated as an amount equal to or in excess of the sum of the outstanding principal (or comparable amount in the case of a lease that constitutes a security interest) owed to the holder immediately preceding the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure, plus any unpaid interest, rent, or penalties

(whether arising before or after foreclosure). The value of the security interest also includes all reasonable and necessary costs, fees, or other charges incurred by the holder incident to work out, foreclosure, retention, preserving, protecting, and preparing, prior to sale, the UST or UST system or facility or property on which the UST or UST system is located, re-lease, pursuant to a lease financing transaction (whether by a new lease financing transaction or substitution of the lessee), of an UST or UST system or facility or property on which the UST or UST system is located, or other disposition. The value of the security interest also includes environmental investigation costs (which could include a site assessment, inspection, and/or audit of the UST or UST system or facility or property on which the UST or UST system is located), and corrective action costs incurred under §§ 280.51 through 280.67 or any other costs incurred as a result of reasonable efforts to comply with any other applicable federal, state or local law or regulation; less any amounts received by the holder in connection with any partial disposition of the property and any amounts paid by the borrower (if not already applied to the borrower's obligations) subsequent to the acquisition of full title (or possession in the case of a lease financing transaction) pursuant to foreclosure. In the case of a holder maintaining indicia of ownership primarily to protect a junior security interest, fair consideration is the value of all outstanding higher priority security interests plus the value of the security interest held by the junior holder, each calculated as set forth in this paragraph (c).

(B) Outbids, rejects, or fails to act upon an offer of fair consideration means that the holder outbids, rejects, or fails to act upon within 90 days of receipt, a written, *bona fide*, firm offer of fair consideration for the UST or UST system or facility or property on which the UST or UST system is located received at any time after six months following foreclosure, as defined in § 280.210(c). A "written, *bona fide*, firm offer" means a legally enforceable, commercially reasonable, cash offer solely for the foreclosed UST or UST system or facility or property on which the UST or UST system is located, including all material terms of the transaction, from a ready, willing, and able purchaser who demonstrates to the holder's satisfaction the ability to perform. For purposes of this provision, the six-month period begins to run from December 6, 1995 or from the date that

marketable title or deed has been issued, approved and recorded to the holder, and the holder has obtained access to the UST, UST system, UST facility and property on which the UST or UST system is located, whichever is later, provided that the holder was acting diligently to acquire marketable title or deed and to obtain access to the UST or UST system, UST facility and property on which the UST or UST system is located. If the holder fails to act diligently to acquire marketable title or deed or to gain access to the UST or UST system, the six-month period begins to run from December 6, 1995 or from the date on which the holder first acquires either title to or possession of the secured UST or UST system, or facility or property on which the UST or UST system is located, whichever is later.

(3) Actions that are not participation in management post-foreclosure. A holder is not considered to be participating in the management of an UST or UST system or facility or property on which the UST or UST system is located when undertaking actions under this part, provided that the holder does not otherwise participate in the management or daily operation of the UST or UST system as provided in § 280.210(a) and § 280.230. Such allowable actions include, but are not limited to, release detection and release reporting, release response and corrective action, temporary or permanent closure of an UST or UST system, UST upgrading or replacement, and maintenance of corrosion protection. A holder who undertakes these actions must do so in compliance with the applicable requirements in this part or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281. A holder may directly oversee these environmental compliance actions and voluntary environmental actions, and directly hire contractors to perform the work, and is not by such action considered to be participating in the management of the UST or UST system.

**§ 280.220 Ownership of an underground storage tank or underground storage tank system or facility or property on which an underground storage tank or underground storage tank system is located.**

Ownership of an UST or UST system or facility or property on which an UST or UST system is located. A holder is not an "owner" of a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located for purposes of compliance

with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided the person:

(a) Does not participate in the management of the UST or UST system as defined in § 280.210; and

(b) Does not engage in petroleum production, refining, and marketing as defined in § 280.200(b).

**§ 280.230 Operating an underground storage tank or underground storage tank system.**

(a) *Operating an UST or UST system prior to foreclosure.* A holder, prior to foreclosure, as defined in § 280.210(c), is not an "operator" of a petroleum UST or UST system for purposes of compliance with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided that, after December 6, 1995, the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(b) *Operating an UST or UST system after foreclosure.* The following provisions apply to a holder who, through foreclosure, as defined in § 280.210(c), acquires a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located.

(1) A holder is not an "operator" of a petroleum UST or UST system for purposes of compliance with this part if there is an operator, other than the holder, who is in control of or has responsibility for the daily operation of the UST or UST system, and who can be held responsible for compliance with applicable requirements of this part or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

(2) If another operator does not exist, as provided for under paragraph (b)(1) of this section, a holder is not an "operator" of the UST or UST system, for purposes of compliance with the UST technical standards as defined in § 280.200(a), the UST corrective action requirements under §§ 280.51 through 280.67, and the UST financial responsibility requirements under §§ 280.90 through 280.111, provided that the holder:

(i) Empties all of its known USTs and UST systems within 60 calendar days

after foreclosure or within 60 calendar days after December 6, 1995, whichever is later, or another reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment; and

(ii) Empties those USTs and UST systems that are discovered after foreclosure within 60 calendar days after discovery or within 60 calendar days after December 6, 1995, whichever is later, or another reasonable time period specified by the implementing agency, so that no more than 2.5 centimeters (one inch) of residue, or 0.3 percent by weight of the total capacity of the UST system, remains in the system; leaves vent lines open and functioning; and caps and secures all other lines, pumps, manways, and ancillary equipment.

(3) If another operator does not exist, as provided for under paragraph (b)(1) of this section, in addition to satisfying the conditions under paragraph (b)(2) of this section, the holder must either:

(i) Permanently close the UST or UST system in accordance with §§ 280.71 through 280.74, except § 280.72(b); or

(ii) Temporarily close the UST or UST system in accordance with the following applicable provisions of § 280.70:

(A) Continue operation and maintenance of corrosion protection in accordance with § 280.31;

(B) Report suspected releases to the implementing agency; and

(C) Conduct a site assessment in accordance with § 280.72(a) if the UST system is temporarily closed for more than 12 months and the UST system does not meet either the performance standards in § 280.20 for new UST systems or the upgrading requirements in § 280.21, except that the spill and overfill equipment requirements do not have to be met. The holder must report any suspected releases to the implementing agency. For purposes of this provision, the 12-month period begins to run from December 6, 1995 or from the date on which the UST system is emptied and secured under paragraph (b)(2) of this section, whichever is later.

(4) The UST system can remain in temporary closure until a subsequent purchaser has acquired marketable title to the UST or UST system or facility or property on which the UST or UST system is located. Once a subsequent purchaser acquires marketable title to the UST or UST system or facility or property on which the UST or UST

system is located, the purchaser must decide whether to operate or close the UST or UST system in accordance with applicable requirements in this part or applicable state requirements in those states that have been delegated authority by EPA to administer the UST program pursuant to 42 U.S.C. 6991c and 40 CFR part 281.

### Subpart J—Operator Training

#### § 280.240 General requirement for all UST systems.

Not later than October 13, 2018, all owners and operators of UST systems must ensure they have designated Class A, Class B, and Class C operators who meet the requirements of this subpart.

#### § 280.241 Designation of Class A, B, and C operators.

UST system owners and operators must designate:

(a) At least one Class A and one Class B operator for each UST or group of USTs at a facility; and

(b) Each individual who meets the definition of Class C operator at the UST facility as a Class C operator.

#### § 280.242 Requirements for operator training.

UST system owners and operators must ensure Class A, Class B, and Class C operators meet the requirements of this section. Any individual designated for more than one operator class must successfully complete the required training program or comparable examination according to the operator class in which the individual is designated.

(a) *Class A operators.* Each designated Class A operator must either be trained in accordance with paragraphs (a)(1) and (2) of this section or pass a comparable examination in accordance with paragraph (e) of this section.

(1) At a minimum, the training program for the Class A operator must provide general knowledge of the requirements in this paragraph (a). At a minimum, the training must teach the Class A operators, as applicable, about the purpose, methods, and function of:

- (i) Spill and overfill prevention;
- (ii) Release detection;
- (iii) Corrosion protection;
- (iv) Emergency response;
- (v) Product and equipment compatibility and demonstration;
- (vi) Financial responsibility;
- (vii) Notification and storage tank registration;
- (viii) Temporary and permanent closure;

(ix) Related reporting, recordkeeping, testing, and inspections;

(x) Environmental and regulatory consequences of releases; and

(xi) Training requirements for Class B and Class C operators.

(2) At a minimum, the training program must evaluate Class A operators to determine these individuals have the knowledge and skills to make informed decisions regarding compliance and determine whether appropriate individuals are fulfilling the operation, maintenance, and recordkeeping requirements for UST systems in accordance with paragraph (a)(1) of this section.

(b) *Class B operators.* Each designated Class B operator must either receive training in accordance with paragraphs (b)(1) and (2) of this section or pass a comparable examination, in accordance with paragraph (e) of this section.

(1) At a minimum, the training program for the Class B operator must cover either: general requirements that encompass all regulatory requirements and typical equipment used at UST facilities; or site-specific requirements which address only the regulatory requirements and equipment specific to the facility. At a minimum, the training program for Class B operators must teach the Class B operator, as applicable, about the purpose, methods, and function of:

- (i) Operation and maintenance;
- (ii) Spill and overfill prevention;
- (iii) Release detection and related reporting;
- (iv) Corrosion protection;
- (v) Emergency response;
- (vi) Product and equipment compatibility and demonstration;
- (vii) Reporting, recordkeeping, testing, and inspections;
- (viii) Environmental and regulatory consequences of releases; and
- (ix) Training requirements for Class C operators.

(2) At a minimum, the training program must evaluate Class B operators to determine these individuals have the knowledge and skills to implement applicable UST regulatory requirements in the field on the components of typical UST systems or, as applicable, site-specific equipment used at an UST facility in accordance with paragraph (b)(1) of this section.

(c) *Class C operators.* Each designated Class C operator must either: be trained by a Class A or Class B operator in accordance with paragraphs (c)(1) and (2) of this section; complete a training program in accordance with paragraphs (c)(1) and (2) of this section; or pass a comparable examination, in accordance with paragraph (e) of this section.

(1) At a minimum, the training program for the Class C operator must teach the Class C operators to take appropriate actions (including notifying

appropriate authorities) in response to emergencies or alarms caused by spills or releases resulting from the operation of the UST system.

(2) At a minimum, the training program must evaluate Class C operators to determine these individuals have the knowledge and skills to take appropriate action (including notifying appropriate authorities) in response to emergencies or alarms caused by spills or releases from an underground storage tank system.

(d) *Training program.* Any training program must meet the minimum requirements of this section and include an evaluation through testing, a practical demonstration, or another approach acceptable to the implementing agency.

(e) *Comparable examination.* A comparable examination must, at a minimum, test the knowledge of the Class A, Class B, or Class C operators in accordance with the requirements of paragraphs (a), (b), or (c) of this section, as applicable.

**§ 280.243 Timing of operator training.**

(a) An owner and operator must ensure that designated Class A, Class B, and Class C operators meet the requirements in § 280.242 not later than October 13, 2018.

(b) Class A and Class B operators designated after October 13, 2018 must meet requirements in § 280.242 within 30 days of assuming duties.

(c) Class C operators designated after October 13, 2018 must be trained before assuming duties of a Class C operator.

**§ 280.244 Retraining.**

Class A and Class B operators of UST systems determined by the implementing agency to be out of compliance must complete a training program or comparable examination in accordance with requirements in § 280.242. The training program or comparable examination must be developed or administered by an

independent organization, the implementing agency, or a recognized authority. At a minimum, the training must cover the area(s) determined to be out of compliance. UST system owners and operators must ensure Class A and Class B operators are retrained pursuant to this section no later than 30 days from the date the implementing agency determines the facility is out of compliance except in one of the following situations:

(a) Class A and Class B operators take annual refresher training. Refresher training for Class A and Class B operators must cover all applicable requirements in § 280.242, or

(b) The implementing agency, at its discretion, waives this retraining requirement for either the Class A or Class B operator or both.

**§ 280.245 Documentation.**

Owners and operators of underground storage tank systems must maintain a list of designated Class A, Class B, and Class C operators and maintain records verifying that training and retraining, as applicable, have been completed, in accordance with § 280.34 as follows:

(a) The list must:

(1) Identify all Class A, Class B, and Class C operators currently designated for the facility; and

(2) Include names, class of operator trained, date assumed duties, date each completed initial training, and any retraining.

(b) Records verifying completion of training or retraining must be a paper or electronic record for Class A, Class B, and Class C operators. The records, at a minimum, must identify name of trainee, date trained, operator training class completed, and list the name of the trainer or examiner and the training company name, address, and telephone number. Owners and operators must maintain these records for as long as Class A, Class B, and Class C operators are designated. The following

requirements also apply to the following types of training:

(1) Records from classroom or field training programs (including Class C operator training provided by the Class A or Class B operator) or a comparable examination must, at a minimum, be signed by the trainer or examiner;

(2) Records from computer based training must, at a minimum, indicate the name of the training program and web address, if Internet based; and

(3) Records of retraining must include those areas on which the Class A or Class B operator has been retrained.

**Subpart K—UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems**

**§ 280.250 Definitions.**

For purposes of this subpart, the following definitions apply:

*Airport hydrant fuel distribution system* (also called airport hydrant system) means an UST system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants (fill stands). The airport hydrant system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier.

*Field-constructed tank* means a tank constructed in the field. For example, a tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed.

**§ 280.251 General requirements.**

(a) *Implementation of requirements.* Owners and operators must comply with the requirements of this part for UST systems with field-constructed tanks and airport hydrant systems as follows:

(1) For UST systems installed on or before October 13, 2015 the requirements are effective according to the following schedule:

Requirement	Effective date
Upgrading UST systems; general operating requirements; and operator training .....	October 13, 2018.
Release detection .....	October 13, 2018.
Release reporting, response, and investigation; closure; financial responsibility and notification (except as provided in paragraph (b) of this section).	October 13, 2015.

(2) For UST systems installed after October 13, 2015, the requirements apply at installation.

(b) Not later than October 13, 2018, all owners of previously deferred UST systems must submit a one-time notice of tank system existence to the implementing agency, using the form in

appendix I of this part or a state form in accordance with § 280.22(c). Owners and operators of UST systems in use as of October 13, 2015 must demonstrate financial responsibility at the time of submission of the notification form.

(c) Except as provided in § 280.252, owners and operators must comply with

the requirements of subparts A through H and J of this part.

(d) In addition to the codes of practice listed in § 280.20, owners and operators may use military construction criteria, such as Unified Facilities Criteria (UFC) 3-460-01, *Petroleum Fuel Facilities*, when designing, constructing, and

installing airport hydrant systems and UST systems with field-constructed tanks.

**§ 280.252 Additions, exceptions, and alternatives for UST systems with field-constructed tanks and airport hydrant systems.**

(a) *Exception to piping secondary containment requirements.* Owners and operators may use single walled piping when installing or replacing piping associated with UST systems with field-constructed tanks greater than 50,000 gallons and piping associated with airport hydrant systems. Piping associated with UST systems with field-constructed tanks less than or equal to 50,000 gallons not part of an airport hydrant system must meet the secondary containment requirement when installed or replaced.

(b) *Upgrade requirements.* Not later than October 13, 2018, airport hydrant systems and UST systems with field-constructed tanks where installation commenced on or before October 13, 2015 must meet the following requirements or be permanently closed pursuant to subpart G of this part.

(1) *Corrosion protection.* UST system components in contact with the ground that routinely contain regulated substances must meet one of the following:

(i) Except as provided in paragraph (a) of this section, the new UST system performance standards for tanks at § 280.20(a) and for piping at § 280.20(b); or

(ii) Be constructed of metal and cathodically protected according to a code of practice developed by a nationally recognized association or independent testing laboratory and meets the following:

(A) Cathodic protection must meet the requirements of § 280.20(a)(2)(ii), (iii), and (iv) for tanks, and § 280.20(b)(2)(ii), (iii), and (iv) for piping.

(B) Tanks greater than 10 years old without cathodic protection must be assessed to ensure the tank is structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method determined by the implementing agency to adequately assess the tank for structural soundness and corrosion holes.

**Note to paragraph (b).** The following codes of practice may be used to comply with this paragraph (b):

(A) NACE International Standard Practice SP 0285, "External Control of Underground Storage Tank Systems by Cathodic Protection";

(B) NACE International Standard Practice SP 0169, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems";

(C) National Leak Prevention Association Standard 631, Chapter C, "Internal Inspection of Steel Tanks for Retrofit of Cathodic Protection"; or

(D) American Society for Testing and Materials Standard G158, "Standard Guide for Three Methods of Assessing Buried Steel Tanks".

(2) *Spill and overflow prevention equipment.* To prevent spilling and overflowing associated with product transfer to the UST system, all UST systems with field-constructed tanks and airport hydrant systems must comply with new UST system spill and overflow prevention equipment requirements specified in § 280.20(c).

(c) *Walkthrough inspections.* In addition to the walkthrough inspection requirements in § 280.36, owners and operators must inspect the following additional areas for airport hydrant systems at least once every 30 days if confined space entry according to the Occupational Safety and Health Administration (see 29 CFR part 1910) is not required or at least annually if confined space entry is required and keep documentation of the inspection according to § 280.36(b).

(1) Hydrant pits—visually check for any damage; remove any liquid or debris; and check for any leaks, and

(2) Hydrant piping vaults—check for any hydrant piping leaks.

(d) *Release detection.* Owners and operators of UST systems with field-constructed tanks and airport hydrant systems must begin meeting the release detection requirements described in this subpart not later than October 13, 2018.

(1) *Methods of release detection for field-constructed tanks.* Owners and operators of field-constructed tanks with a capacity less than or equal to 50,000 gallons must meet the release detection requirements in subpart D of this part. Owners and operators of field-constructed tanks with a capacity greater than 50,000 gallons must meet either the requirements in subpart D (except § 280.43(e) and (f) must be combined with inventory control as stated below) or use one or a combination of the following alternative methods of release detection:

(i) Conduct an annual tank tightness test that can detect a 0.5 gallon per hour leak rate;

(ii) Use an automatic tank gauging system to perform release detection at least every 30 days that can detect a leak rate less than or equal to one gallon per hour. This method must be combined

with a tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every three years;

(iii) Use an automatic tank gauging system to perform release detection at least every 30 days that can detect a leak rate less than or equal to two gallons per hour. This method must be combined with a tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every two years;

(iv) Perform vapor monitoring (conducted in accordance with § 280.43(e) for a tracer compound placed in the tank system) capable of detecting a 0.1 gallon per hour leak rate at least every two years;

(v) Perform inventory control (conducted in accordance with Department of Defense Directive 4140.25; ATA Airport Fuel Facility Operations and Maintenance Guidance Manual; or equivalent procedures) at least every 30 days that can detect a leak equal to or less than 0.5 percent of flow-through; and

(A) Perform a tank tightness test that can detect a 0.5 gallon per hour leak rate at least every two years; or

(B) Perform vapor monitoring or groundwater monitoring (conducted in accordance with § 280.43(e) or (f), respectively, for the stored regulated substance) at least every 30 days; or

(vi) Another method approved by the implementing agency if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (d)(1)(i) through (v) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability of detection.

(2) *Methods of release detection for piping.* Owners and operators of underground piping associated with field-constructed tanks less than or equal to 50,000 gallons must meet the release detection requirements in subpart D of this part. Owners and operators of underground piping associated with airport hydrant systems and field-constructed tanks greater than 50,000 gallons must follow either the requirements in subpart D (except § 280.43(e) and (f) must be combined with inventory control as stated below) or use one or a combination of the following alternative methods of release detection:

(i)(A) Perform a semiannual or annual line tightness test at or above the piping operating pressure in accordance with the table below.

MAXIMUM LEAK DETECTION RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test—leak detection rate not to exceed (gallons per hour)	Annual test—leak detection rate not to exceed (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

(B) Piping segment volumes ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the following schedule:

PHASE IN FOR PIPING SEGMENTS ≥100,000 GALLONS IN VOLUME

First test	Not later than October 13, 2018 (may use up to 6.0 gph leak rate).
Second test	Between October 13, 2018 and October 13, 2021 (may use up to 6.0 gph leak rate).
Third test	Between October 13, 2021 and October 13, 2022 (must use 3.0 gph for leak rate).
Subsequent tests	After October 13, 2022, begin using semiannual or annual line testing according to the Maximum Leak Detection Rate Per Test Section Volume table above.

(ii) Perform vapor monitoring (conducted in accordance with § 280.43(e) for a tracer compound placed in the tank system) capable of detecting a 0.1 gallon per hour leak rate at least every two years;

(iii) Perform inventory control (conducted in accordance with Department of Defense Directive 4140.25; ATA Airport Fuel Facility Operations and Maintenance Guidance Manual; or equivalent procedures) at least every 30 days that can detect a leak equal to or less than 0.5 percent of flow-through; and

(A) Perform a line tightness test (conducted in accordance with paragraph (d)(2)(i) of this section using the leak rates for the semiannual test) at least every two years; or

(B) Perform vapor monitoring or groundwater monitoring (conducted in accordance with § 280.43(e) or (f), respectively, for the stored regulated substance) at least every 30 days; or

(iv) Another method approved by the implementing agency if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (d)(2)(i) through (iii) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability of detection.

(3) *Recordkeeping for release detection.* Owners and operators must maintain release detection records

according to the recordkeeping requirements in § 280.45.

(e) *Applicability of closure requirements to previously closed UST systems.* When directed by the implementing agency, the owner and operator of an UST system with field-constructed tanks or airport hydrant system permanently closed before October 13, 2015 must assess the excavation zone and close the UST system in accordance with subpart G of this part if releases from the UST may, in the judgment of the implementing agency, pose a current or potential threat to human health and the environment.



**Appendix I to Part 280—Notification for Underground Storage Tanks (Forms)**

United States <b>Environmental Protection Agency</b> Washington, DC 20460		OMB Control No. 2050-0068 Approval expires XX/XX/XX	
<b>Notification for Underground Storage Tanks</b>			
Implementing Agency Name And Address:		<b>IMPLEMENTING AGENCY USE ONLY</b>	
		ID NUMBER:	
		DATE RECEIVED:	
		DATE ENTERED INTO COMPUTER:	
<b>TYPE OF NOTIFICATION</b>		DATA ENTRY CLERK INITIALS:	
<input type="checkbox"/> A. NEW FACILITY OR ONE-TIME NOTIFICATION (previously deferred system)	<input type="checkbox"/> B. AMENDED	OWNER WAS CONTACTED TO CLARIFY RESPONSES. COMMENTS:	
_____ Number of tanks at facility _____ Number of continuation sheets attached		<b>What USTs Are Included?</b> An UST system is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and whose volume (including connected underground piping) is 10 percent or more beneath the ground. Regulated USTs store petroleum or hazardous substances (see <b>What Substances Are Covered</b> below). This includes UST systems with field-constructed tanks and airport hydrant fuel distribution systems.	
<b>INSTRUCTIONS AND GENERAL INFORMATION</b>		<b>What Tanks Are Excluded From Notification (see § 280.10 and § 280.12)?</b> <ul style="list-style-type: none"> <li>• Tanks removed from the ground before May 8, 1986;</li> <li>• Farm or residential tanks of 1,100 gallons or less capacity storing motor fuel for noncommercial purposes;</li> <li>• Tanks storing heating oil for use on the premises where stored;</li> <li>• Septic tanks;</li> <li>• Certain pipeline facilities regulated under chapters 601 and 603 of Title 49;</li> <li>• Surface impoundments, pits, ponds, or lagoons;</li> <li>• Storm water or wastewater collection systems;</li> <li>• Flow-through process tanks;</li> <li>• Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;</li> <li>• Tanks on or above the floor of underground areas, such as basements or tunnels;</li> <li>• Tanks with a capacity of 110 gallons or less;</li> <li>• Wastewater treatment tank systems;</li> <li>• UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954;</li> <li>• UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50.</li> </ul>	
Please <b>type</b> or <b>print</b> in ink. Also, be sure you have signatures in ink for sections VIII and XI. Complete a notification form for each location containing underground storage tanks. If more than 5 tanks are owned at this location, you may photocopy pages 3 through 6 and use them for additional tanks.  The primary purpose of this notification form is to provide information about the installation, existence, changes to, and closure of underground storage tank systems (USTs) that store or have stored petroleum or hazardous substances. The information you provide will be based on reasonably available records, or in the absence of such records, your knowledge or recollection.  <b>Federal law requires UST owners to use this notification form for all USTs storing regulated substances that are brought into use after May 8, 1986, or USTs in the ground as of May 8, 1986 that have stored regulated substances at any time since January 1, 1974. The information requested is required by Section 9002 of the Solid Waste Disposal Act (SWDA), as amended.</b>  <b>Who Must Notify?</b> 40 CFR part 280, as amended, requires owners of USTs that store regulated substances (unless exempted) to notify implementing agencies of the existence of their USTs. Owner is defined as: <ul style="list-style-type: none"> <li>• In the case of an UST in use on November 8, 1984, or brought into use after that date, any person who owns an UST used for storage, use, or dispensing of regulated substances; or</li> <li>• In the case of an UST in use before November 8, 1984, but no longer in use on that date, any person who owned the UST immediately before its discontinuation.</li> </ul> Also, owners of previously deferred UST systems with field-constructed tanks and airport hydrant fuel distribution systems in the ground as of October 13, 2015 must submit a one-time notification of existence by October 13, 2018. Owners of UST systems with field-constructed tanks and airport hydrant fuel distribution systems brought into use after October 13, 2015 are considered new facilities and must follow the same notification requirements as all other UST owners.		<b>What Substances Are Covered?</b> The notification requirements apply to USTs containing petroleum or certain hazardous substances. Petroleum includes gasoline, used oil, diesel fuel, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Hazardous substances are those found in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, with the exception of those substances regulated as hazardous waste under Subtitle C of the Resource Conservation and Recovery Act.  <b>When And Who To Notify?</b> Owners who bring USTs into use after May 8, 1986 must submit this notification form to the implementing agency within 30 days of bringing the UST into use. If the implementing agency requires notification of any amendments to the facility, send information to the implementing agency immediately.  <b>Penalties:</b> Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$16,000 for each tank for which notification is not given or for which false information is given.	
<b>I. OWNERSHIP OF USTs</b>		<b>II. LOCATION OF USTs</b>	
Owner Name (Corporation, Individual, Public Agency, Or Other Entity)		If required by implementing agency, give the geographic location of USTs either in decimal degrees, or degrees, minutes, and seconds. Example: Latitude: 36.123480 (or 36° 7' 24.4"). Longitude: -106.549876 (or -106° 32' 59.6")	
Street Address		Latitude _____ Longitude _____	
County		Facility Name Or Company Site Identifier, As Applicable	
City	State	<input type="checkbox"/> If address is the same as in Section I, check the box and proceed to section III. If address is different, enter address below: Street Address	
Phone Number (Include Area Code)	City	State	Zip Code
City		County	
EPA Form 7530-1 (Rev. 6-2015) Electronic and paper versions acceptable. Previous editions may be used while supplies last.			



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

OMB Control No. 2050-0068  
 Approval expires XX/XX/XX

**Notification For Underground Storage Tanks**

**III. TYPE OF OWNER**

- |   |  |
|---|--|
| <input type="checkbox"/> Federal Government | <input type="checkbox"/> Tribal Government |
| <input type="checkbox"/> State Government   | <input type="checkbox"/> Local Government  |
| <input type="checkbox"/> Commercial         | <input type="checkbox"/> Private           |

**IV. INDIAN COUNTRY**

USTs are located on land within an Indian reservation or on trust lands outside reservation boundaries

Federally recognized tribe where USTs are located:

**V. TYPE OF FACILITY**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Auto Dealership               | <input type="checkbox"/> Federal – Military    | <input type="checkbox"/> Residential           |
| <input type="checkbox"/> Commercial Airport Or Airline | <input type="checkbox"/> Gas Station           | <input type="checkbox"/> Trucking Or Transport |
| <input type="checkbox"/> Contractor                    | <input type="checkbox"/> Industrial            | <input type="checkbox"/> Utilities             |
| <input type="checkbox"/> Farm                          | <input type="checkbox"/> Petroleum Distributor | <input type="checkbox"/> Other (Explain) _____ |
| <input type="checkbox"/> Federal – Non-military        | <input type="checkbox"/> Railroad              |  |

**VI. CONTACT PERSON IN CHARGE OF TANKS**

Name:	Job Title:	Address:	Phone Number (Include Area Code):

**VII. FINANCIAL RESPONSIBILITY**

- I have met the financial responsibility requirements (in accordance with 40 CFR part 280 Subpart H) by using the following mechanisms:  
 (check all that apply)
- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Bond Rating Test     | <input type="checkbox"/> Local Government Financial Test | <input type="checkbox"/> Surety Bond                        |
| <input type="checkbox"/> Commercial Insurance | <input type="checkbox"/> Risk Retention Group            | <input type="checkbox"/> Trust Fund                         |
| <input type="checkbox"/> Guarantee            | <input type="checkbox"/> Self-insurance (Financial Test) | <input type="checkbox"/> Other Method (describe here) _____ |
| <input type="checkbox"/> Letter Of Credit     | <input type="checkbox"/> State Fund                      |   |

I do not have to meet financial responsibility requirements because 40 CFR part 280 Subpart H is not applicable to me (e.g., if you are a state or federal owner).

**VIII. CERTIFICATION (Read and sign after completing ALL SECTIONS of this notification form)**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in Sections I through XI of this notification form and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative (Print)	Signature	Date Signed
---	-----------	-------------

**Paperwork Reduction Act Notice**

The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

OMB Control No. 2050-0068  
 Approval expires XX/XX/XX

**Notification For Underground Storage Tanks**

**IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for all tanks and piping at this location)**

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
<b>1. Status Of Tank</b> (check only one)					
Currently In Use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Temporarily Closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permanently Closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Date Of Installation</b> (month/year)					
<b>3. Estimated Total Capacity</b> (gallons)					
<b>4. Tank Attributes</b> (check all that apply)					
Asphalt Coated Or Bare Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cathodically Protected Steel (impressed current)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cathodically Protected Steel (sacrificial anodes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coated and Cathodically Protected Steel (impressed current)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coated and Cathodically Protected Steel (sacrificial anodes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Composite (steel clad with noncorrodible material)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noncorrodible Tank Jacket	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lined Interior	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excavation Liner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manifolded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compartmentalized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Field-constructed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify Here	_____	_____	_____	_____	_____
Check Box If Tank Has Ever Been Repaired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>5. Overfill Protection Installed</b> (check all that apply)					
Automatic Shutoff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flow Restrictor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-level Alarm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify Here	_____	_____	_____	_____	_____
<b>6. Spill Prevention Installed</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EPA Form 7530-1 (Rev. 6-2015) Electronic and paper versions acceptable.  
 Previous editions may be used while supplies last.



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

OMB Control No. 2050-0068  
 Approval expires XX/XX/XX

**Notification For Underground Storage Tanks**

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
<b>7. Piping Attributes</b> (check all that apply)					
Bare Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Galvanized Steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fiberglass Reinforced Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexible Plastic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cathodically Protected (impressed current)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cathodically Protected (sacrificial anodes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Double Walled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Secondary Containment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airport Hydrant Piping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unknown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify Here	_____	_____	_____	_____	_____
<b>8. Piping Delivery Type</b> (check all that apply)					
Safe Suction (no valve at tank)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U.S. Suction (valve at tank)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gravity Feed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>9. Substance Currently Stored (or last stored in the case of closed tanks)</b> (check all that apply)					
Gasoline (containing ≤ 10% ethanol)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biodiesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kerosene	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heating Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used Oil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gasoline Containing >10% Ethanol (specify amount of ethanol)	_____	_____	_____	_____	_____
Diesel Containing >20% Biodiesel (specify amount of biodiesel)	_____	_____	_____	_____	_____
Other, specify here	_____	_____	_____	_____	_____
Hazardous Substance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CERCLA Name Or CAS Number	_____	_____	_____	_____	_____
Mixture Of Substances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please Specify Substances Here	_____	_____	_____	_____	_____



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

OMB Control No. 2050-0068  
 Approval expires XX/XX/XX

**Notification For Underground Storage Tanks**

Tank Identification Number	Tank No.		Tank No.		Tank No.		Tank No.		Tank No.	
	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
<b>10. Release Detection</b> (check all that apply)										
Manual Tank Gauging	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Tank Tightness Testing	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Inventory Control	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	
Automatic Tank Gauging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vapor Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstitial Monitoring (required for new or replaced tanks or piping)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statistical Inventory Reconciliation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Line Leak Detectors		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Line Tightness Testing		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
No Release Detection Required (such as some types of suction piping)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Method Allowed By Implementing Agency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify Here	_____		_____		_____		_____		_____	

**X. CLOSURE OR CHANGE IN SERVICE**

<b>1. Closure Or Change In Service</b>					
Estimated Date The UST Was Last Used For Storing Regulated Substances (month/day/year)	_____	_____	_____	_____	_____
Check Box If This Is A Change In Service (i.e., Change of storage to a non- regulated substance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Tank Closure</b>					
Estimated Date Tank Closed (month/day/year)	_____	_____	_____	_____	_____
(check all that apply below)					
Tank Removed From Ground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tank Closed In Ground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tank Filled With Inert Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe The Inert Fill Material Here	_____	_____	_____	_____	_____
<b>3. Site Assessment</b>					
Check Box If The Site Assessment Was Completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check Box If Evidence Of A Release Was Detected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify Here	_____	_____	_____	_____	_____

EPA Form 7530-1 (Rev. 6-2015) Electronic and paper versions acceptable.  
 Previous editions may be used while supplies last.



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

OMB Control No. 2050-0068  
 Approval expires XX/XX/XX

**Notification For Underground Storage Tanks**

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
----------------------------	----------	----------	----------	----------	----------

**XI. CERTIFICATION OF INSTALLATION (Complete For UST Systems Installed After December 22, 1988 And For Airport Hydrant Distribution Systems And Field-Constructed USTs Installed After October 13, 2015)**

Installer Of Tank And Piping (check all that apply)					
Installer Certified By Tank And Piping Manufacturers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installer Certified Or Licensed By The Implementing Agency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installation Inspected By A Registered Engineer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installation Inspected And Approved By Implementing Agency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturer's Installation Checklists Have Been Completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Another Method Allowed By Implementing Agency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify Other Method Here	_____	_____	_____	_____	_____

**Signature Of UST Installer Certifying Proper Installation Of UST System**

\_\_\_\_\_

Name

\_\_\_\_\_

Signature

\_\_\_\_\_

Date

\_\_\_\_\_


Position

\_\_\_\_\_

Company

EPA Form 7530-1 (Rev. 6-2015) Electronic and paper versions acceptable. Previous editions may be used while supplies last.

**Appendix II to Part 280—Notification of Ownership for Underground Storage Tanks (Form)**

 United States Environmental Protection Agency Washington, DC 20460		OMB Control No. 2050-0068 Approval expires XX/XX/XX
<b>Notification of Ownership Change for Underground Storage Tanks</b>		
Implementing Agency Name And Address:		<b>IMPLEMENTING AGENCY USE ONLY</b>
		ID NUMBER:
		DATE RECEIVED:
		DATE ENTERED INTO COMPUTER:
		DATA ENTRY CLERK INITIALS:
<b>INSTRUCTIONS AND GENERAL INFORMATION</b>		OWNER WAS CONTACTED TO CLARIFY RESPONSES. COMMENTS:
Please type or print in ink. Also, be sure you have signatures in ink. The primary purpose of this notification form is to inform implementing agencies of ownership changes for underground storage tank (UST) systems that store or have stored petroleum or hazardous substances. Federal regulation requires UST owners to notify the implementing agency of any ownership change for USTs storing regulated substances after October 13, 2015. Who Must Notify? 40 CFR part 280, as amended, requires owners of USTs that store regulated substances (unless exempted) to notify implementing agencies of any ownership changes. Owner is defined as: <ul style="list-style-type: none"> <li>In the case of an UST in use on November 8, 1984, or brought into use after that date, any person who owns an UST used for storage, use, or dispensing of regulated substances; or</li> <li>In the case of an UST in use before November 8, 1984, but no longer in use on that date, any person who owned the UST immediately before its discontinuation.</li> </ul> What USTs Are Included? An UST system is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and whose volume (including connected underground piping) is 10 percent or more beneath the ground. Regulated USTs store petroleum or hazardous substances (see What Substances Are Covered to the right). This includes UST systems with field-constructed tanks and airport hydrant fuel distribution systems. When And Who To Notify? Any owner or operator who assumes ownership of a regulated UST system must submit this notification form to the implementing agency within 30 days of assuming such ownership.		What Tanks Are Excluded From Notification (see § 280.10 and § 280.12)? <ul style="list-style-type: none"> <li>Tanks removed from the ground before May 8, 1986;</li> <li>Farm or residential tanks of 1,100 gallons or less capacity storing motor fuel for noncommercial purposes;</li> <li>Tanks storing heating oil for use on the premises where stored;</li> <li>Septic tanks;</li> <li>Certain pipeline facilities regulated under chapters 601 and 603 of Title 49;</li> <li>Surface impoundments, pits, ponds, or lagoons;</li> <li>Storm water or wastewater collection systems;</li> <li>Flow-through process tanks;</li> <li>Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;</li> <li>Tanks on or above the floor of underground areas, such as basements or tunnels;</li> <li>Tanks with a capacity of 110 gallons or less;</li> <li>Wastewater treatment tank systems;</li> <li>UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954;</li> <li>UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50.</li> </ul> What Substances Are Covered? The notification requirements apply to USTs containing petroleum or certain hazardous substances. Petroleum includes gasoline, used oil, diesel fuel, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Hazardous substances are those found in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, with the exception of those substances regulated as hazardous waste under Subtitle C of the Resource Conservation and Recovery Act. Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$16,000 for each tank for which notification is not given or for which false information is given.
<b>OWNERSHIP OF USTs</b>		<b>FACILITY NAME AND LOCATION OF USTs</b>
Corporation, Individual, Public Agency, Or Other Entity		
Current Owner Name	Previous Owner Name	Facility Name  <input type="checkbox"/> Check here if name changed after ownership
Current Owner Address	Previous Owner Address	<input type="checkbox"/> Check this box if the physical address of the USTs is the same as the current owner address. If address is different, enter address below:  If required by implementing agency, give the geographic location of USTs either in decimal degrees, or degrees, minutes, and seconds. Example: Latitude: 36.12348 (or 36° 7' 24.4"). Longitude: -106.549876 (or -106° 32' 59.6") Latitude _____ Longitude _____
Current Owner Phone	Previous Owner Phone	Date Of Ownership Change
Signature Of Current Owner: _____		Date: _____
Paperwork Reduction Act Notice The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.		
EPA Form 6200-10 Electronic and paper versions acceptable.		

**Appendix III to Part 280—Statement for Shipping Tickets and Invoices**

**Note.** A federal law (the Solid Waste Disposal Act, as amended), requires owners of certain underground storage tanks to notify implementing agencies of the existence of their tanks. Notifications must be made within 30 days of bringing the tank into use. Consult EPA's regulation at 40 CFR 280.22 to determine if you are affected by this law.

■ 2. Revise part 281 to read as follows:

**PART 281—APPROVAL OF STATE UNDERGROUND STORAGE TANK PROGRAMS****Subpart A—Purpose, General Requirements and Scope**

Sec.

- 281.10 Purpose.
- 281.11 General requirements.
- 281.12 Scope and definitions.

**Subpart B—Components of a Program Application**

- 281.20 Program application.
- 281.21 Description of state program.
- 281.22 Procedures for adequate enforcement.
- 281.23 Memorandum of agreement.
- 281.24 Attorney General's statement.

**Subpart C—Criteria for No Less Stringent**

- 281.30 New UST system design, construction, installation, and notification.
- 281.31 Upgrading existing UST systems.
- 281.32 General operating requirements.
- 281.33 Release detection.
- 281.34 Release reporting, investigation, and confirmation.
- 281.35 Release response and corrective action.
- 281.36 Out-of-service UST systems and closure.
- 281.37 Financial responsibility for UST systems containing petroleum.
- 281.38 Lender liability.
- 281.39 Operator training.

**Subpart D—Adequate Enforcement of Compliance**

- 281.40 Requirements for compliance program and authority.
- 281.41 Requirements for enforcement authority.
- 281.42 Requirements for public participation.
- 281.43 Sharing of information.

**Subpart E—Approval Procedures**

- 281.50 Approval procedures for state programs.
- 281.51 Revision of approved state programs.

**Subpart F—Withdrawal of Approval of State Programs**

- 281.60 Criteria for withdrawal of approval of state programs.
- 281.61 Procedures for withdrawal of approval of state programs.

**Authority:** 42 U.S.C. 6912, 6991(c), 6991(d), 6991(e), 6991(i), 6991(k).

**Subpart A—Purpose, General Requirements and Scope****§ 281.10 Purpose.**

(a) This part specifies the requirements that state programs must meet for approval by the Administrator under section 9004 of the Solid Waste Disposal Act, and the procedures EPA will follow in approving, revising and withdrawing approval of state programs.

(b) State submissions for program approval must be in accordance with the procedures set out in this part.

(c) A state may apply for approval under this part at any time after the promulgation of release detection, prevention, and corrective action regulations under § 9003 of the Solid Waste Disposal Act.

(d) Any state program approved by the Administrator under this part shall at all times be conducted in accordance with the requirements of this part.

**§ 281.11 General requirements.**

(a) *State program elements.* The following substantive elements of a state program must be addressed in a state application for approval:

- (1) Requirements for all existing and new underground storage tanks:
  - (i) New UST systems (design, construction, installation, and notification);
  - (ii) Upgrading of existing UST systems;
  - (iii) General operating requirements;
  - (iv) Release detection;
  - (v) Release reporting, investigation, and confirmation;
  - (vi) Out-of-service USTs and closure;
  - (vii) Release response and corrective action;
  - (viii) Financial responsibility for UST systems containing petroleum; and
  - (ix) Operator training.
- (2) Provisions for adequate enforcement of compliance with the above program elements.

(b) *Final approval.* The state must demonstrate that its requirements under each state program element for existing and new UST systems are no less stringent than the corresponding federal requirements as set forth in subpart C of this part. The state must also demonstrate that it has a program that provides adequate enforcement of compliance with these requirements.

(c) States with programs approved under this part are authorized to administer the state program in lieu of the federal program and will have primary enforcement responsibility with respect to the requirements of the approved program. EPA retains authority to take enforcement action in approved states as necessary and will

notify the designated lead state agency of any such intended action.

**§ 281.12 Scope and definitions.**

(a) *Scope.* (1) The Administrator may approve either partial or complete state programs. A “partial” state program regulates either solely UST systems containing petroleum or solely UST systems containing hazardous substances. If a “partial” state program is approved, EPA will administer the remaining part of the program. A “complete” state program regulates both petroleum and hazardous substance tanks.

(2) EPA will administer the UST program in Indian country, except where Congress has clearly expressed an intention to grant a state authority to regulate petroleum and hazardous substance USTs in Indian country. In either case, this decision will not impair a state's ability to obtain program approval for petroleum or hazardous substances in non-Indian country in accordance with this part.

(3) Nothing in this subpart precludes a state from:

- (i) Adopting or enforcing requirements that are more stringent or more extensive than those required under this part; or
- (ii) Operating a program with a greater scope of coverage than that required under this part. Where an approved state program has a greater scope of coverage than required by federal law, the additional coverage is not part of the federally-approved program.

(b) *Definitions.* (1) The definitions in 40 CFR part 280 apply to this entire part except as described below.

(i) States may use the definitions associated with tank and piping secondary containment as defined in section 9003 of the Solid Waste Disposal Act.

(ii) States may use the definitions associated with operator training as described in § 9010 of the Solid Waste Disposal Act.

(2) For the purposes of this part the term “final approval” means the approval received by a state program that meets the requirements in § 281.11(b).

**Subpart B—Components of a Program Application****§ 281.20 Program application.**

Any state that seeks to administer a program under this part must submit an application containing the following parts:

- (a) A transmittal letter from the Governor of the state requesting program approval;



(b) A description in accordance with § 281.21 of the state program and operating procedures;

(c) A demonstration of the state's procedures to ensure adequate enforcement;

(d) A Memorandum of Agreement outlining roles and responsibilities of EPA and the implementing agency;

(e) An Attorney General's statement in accordance with § 281.25 certifying to applicable state authorities; and

(f) Copies of all applicable state statutes and regulations.

#### **§ 281.21 Description of state program.**

A state seeking to administer a program under this part must submit a description of the program it proposes to administer under state law in lieu of the federal program. The description of a state's existing or planned program must include:

(a) The scope of the state program:

(1) Whether the state program regulates UST systems containing petroleum or hazardous substances, or both;

(2) Whether the state program is more stringent or broader in scope than the federal program, and in what ways; and

(3) Whether the state has any existing authority in Indian country or has existing agreements with Indian tribes relevant to the regulation of underground storage tanks.

(b) The organization and structure of the state and local agencies with responsibility for administering the program. The jurisdiction and responsibilities of all state and local implementing agencies must be delineated, appropriate procedures for coordination set forth, and one state agency designated as a "lead agency" to facilitate communications between EPA and the state.

(c) Staff resources to carry out and enforce the required state program elements, both existing and planned, including the number of employees, agency where employees are located, general duties of the employees, and current limits or restrictions on hiring or utilization of staff.

(d) An existing state funding mechanism to meet the estimated costs of administering and enforcing the required state program elements, and any restrictions or limitations upon this funding.

#### **§ 281.22 Procedures for adequate enforcement.**

A state must submit a description of its compliance monitoring and enforcement procedures, including related state administrative or judicial review procedures.

#### **§ 281.23 Memorandum of agreement.**

EPA and the approved state will negotiate a Memorandum of Agreement (MOA) containing proposed areas of coordination and shared responsibilities between the state and EPA and separate EPA and state roles and responsibilities in areas including, but not limited to: Implementation of partial state programs; enforcement; compliance monitoring; EPA oversight; and sharing and reporting of information. At the time of approval, the MOA must be signed by the Regional Administrator and the appropriate official of the state lead agency.

#### **§ 281.24 Attorney General's statement.**

(a) A state must submit a written demonstration from the Attorney General that the laws and regulations of the state provide adequate authority to carry out the program described under § 281.21 and to meet other requirements of this part. This statement may be signed by independent legal counsel for the state rather than the Attorney General, provided that such counsel has full authority to independently represent the state Agency in court on all matters pertaining to the state program. This statement must include citations to the specific statutes, administrative regulations, and where appropriate, judicial decisions that demonstrate adequate authority to regulate and enforce requirements for UST systems. State statutes and regulations cited by the state Attorney General must be fully effective when the program is approved.

(b) If a state currently has authority over underground storage tank activities in Indian country, the statement must contain an appropriate analysis of the state's authority.

### **Subpart C—Criteria for No Less Stringent**

#### **§ 281.30 New UST system design, construction, installation, and notification.**

In order to be considered no less stringent than the corresponding federal requirements for new UST system design, construction, installation, and notification, the state must have requirements that ensure all new underground storage tanks, and the attached piping in contact with the ground and used to convey the regulated substance stored in the tank, conform to the following:

(a) Be designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion. Unless the state requires manufacturer and installer

financial responsibility and installer certification in accordance with section 9003(i)(2) of the Solid Waste Disposal Act, then the state must meet the following:

(1) New or replaced tanks and piping must use interstitial monitoring within secondary containment in accordance with section 9003(i)(1) of the Solid Waste Disposal Act except as follows:

(i) Underground piping associated with: Airport hydrant systems or field-constructed tanks greater than 50,000 gallons or

(ii) Underground suction piping that meets § 281.33(d)(2)(ii).

(2) New motor fuel dispenser systems installed and connected to an UST system must be equipped with under-dispenser containment in accordance with section 9003(i)(1) of the Solid Waste Disposal Act.

**Note to paragraph (a).** Codes of practice developed by nationally recognized organizations and national independent testing laboratories may be used to demonstrate that the state program requirements are no less stringent in this area.

(b) Be provided with equipment to prevent spills and tank overfills when new tanks are installed or existing tanks are upgraded, unless the tank does not receive more than 25 gallons at one time. Flow restrictors used in vent lines are not allowable forms of overflow prevention when overflow prevention is installed or replaced.

(c) All UST system owners and operators must notify the implementing agency of the existence of any new UST system and notify the implementing agency within a reasonable timeframe when assuming ownership of an UST system using a process designated by the implementing agency.

#### **§ 281.31 Upgrading existing UST systems.**

In order to be considered no less stringent than the corresponding federal upgrading requirements, the state must have requirements that ensure existing UST systems meet the requirements of § 281.30; are upgraded to prevent releases for their operating life due to corrosion, spills, or overfills; or are permanently closed with the following exceptions:

(a) Upgrade requirements for previously deferred UST systems. Previously deferred airport hydrant fuel distribution systems and UST systems with field-constructed tanks must within three years of the effective date of its state requirements meet the requirements of § 281.30 or be permanently closed. This provision would not apply, however, to states that did not defer these UST systems and

already had, prior to the effective date of this provision, existing requirements with specified compliance periods for these types of UST systems.

(b) Upgrade requirements for other UST systems. States may allow UST systems to be upgraded if the state determines that the upgrade is appropriate to prevent releases for the operating life of the UST system due to corrosion and spills or overfills.

#### **§ 281.32 General operating requirements.**

In order to be considered no less stringent than the corresponding federal general operating requirements, the state must have requirements that ensure all new and existing UST systems conform to the following:

(a) Prevent spills and overfills by ensuring that the space in the tank is sufficient to receive the volume to be transferred and that the transfer operation is monitored constantly;

(b) Where equipped with cathodic protection, be operated and maintained by a person with sufficient training and experience in preventing corrosion, and in a manner that ensures that no releases occur during the operating life of the UST system;

**Note to paragraph (b).** Codes of practice developed by nationally recognized organizations and national independent testing laboratories may be used to demonstrate the state program requirements are no less stringent.

(c) Be made of or lined with materials that are compatible with the substance stored; in order to ensure compatibility, the state requirements must also include provisions for demonstrating compatibility with new and innovative regulated substances or other regulated substances identified by the implementing agency or include other provisions determined by the implementing agency to be no less protective of human health and the environment than the provisions for demonstrating compatibility;

(d) At the time of upgrade or repair, be structurally sound and upgraded or repaired in a manner that will prevent releases due to structural failure or corrosion during their operating lives;

(e) Have spill and overflow prevention equipment periodically tested or inspected in a manner and frequency that ensures its functionality for the operating life of the equipment and have the integrity of containment sumps used for interstitial monitoring of piping periodically tested in a manner and frequency that prevents releases during the operating life of the UST system;

(f) Have operation and maintenance walkthrough inspections periodically conducted in a manner and frequency

that ensures proper operation and maintenance for the operating life of the UST system; and

(g) Have records of monitoring, testing, repairs, and inspections. These records must be made readily available when requested by the implementing agency.

#### **§ 281.33 Release detection.**

In order to be considered no less stringent than the corresponding federal requirements for release detection, the state must have requirements that at a minimum ensure all UST systems are provided with release detection that conforms to the following:

(a) *General methods.* Release detection requirements for owners and operators must consist of a method, or combination of methods, that is:

(1) Capable of detecting a release of the regulated substance from any portion of the UST system that routinely contains regulated substances—as effectively as any of the methods allowed under this part—for as long as the UST system is in operation. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the speed and reliability with which the release can be detected.

(2) Designed, installed, calibrated, operated and maintained so that releases will be detected in accordance with the capabilities of the method;

(3) Operated and maintained, and electronic and mechanical components and other equipment are tested or inspected periodically, in a manner and frequency that ensures proper operation to detect releases for the operating life of the release detection equipment.

(b) *Phase-in of requirements.* Release detection requirements must, at a minimum, be applied at all UST systems immediately, except for UST systems previously deferred under § 280.10(a)(1). Release detection requirements must, at a minimum, be scheduled to be applied to those previously deferred UST systems as follows:

(1) Immediately when a new previously deferred UST system is installed; and

(2) For any previously deferred UST system within three years of the effective date of its state requirements. This provision would not apply, however, to states that did not defer these UST systems and already had, prior to the effective date of this provision, existing release detection requirements with specified compliance periods for these types of UST systems.

(c) *Requirements for petroleum tanks.* All petroleum tanks must meet the following requirements:

(1) All petroleum tanks must be sampled, tested, or checked for releases at least monthly, except that tanks installed before October 13, 2015 or upgraded tanks (that is, tanks and piping protected from releases due to corrosion and equipped with both spill and overflow prevention devices) may temporarily use monthly inventory control (or its equivalent) in combination with tightness testing (or its equivalent) conducted every five years for the first 10 years after the tank is installed; and

(2) New or replaced petroleum tanks must use interstitial monitoring within secondary containment in accordance with section 9003(i)(1) of the Solid Waste Disposal Act except when the state requires manufacturer and installer financial responsibility and installer certification in accordance with section 9003(i)(2) of the Solid Waste Disposal Act.

(d) *Requirements for petroleum piping.* All underground piping attached to the tank that routinely conveys petroleum must conform to the following:

(1) If the petroleum is conveyed under greater than atmospheric pressure:

(i) The piping must be equipped with release detection that detects a release within an hour by restricting or shutting off flow or sounding an alarm; and

(ii) The piping must have monthly monitoring applied or annual tightness tests conducted.

(2) If suction lines are used:

(i) Tightness tests must be conducted at least once every three years, unless a monthly method of detection is applied to this piping; or

(ii) The piping is designed to allow the contents of the pipe to drain back into the storage tank if the suction is released and is also designed to allow an inspector to immediately determine the integrity of the piping system.

(3) Except as provided for in § 281.30(a)(1) new or replaced petroleum piping must use interstitial monitoring within secondary containment in accordance with section 9003(i)(1) of the Solid Waste Disposal Act except when the state requires evidence of financial responsibility and certification in accordance with section 9003(i)(2) of the Solid Waste Disposal Act.

(e) *Requirements for hazardous substance UST systems.* All new hazardous substance UST systems must use interstitial monitoring within secondary containment of the tanks and the attached underground piping that

conveys the regulated substance stored in the tank. For hazardous substance UST systems installed prior to October 13, 2015, owners and operators can use another form of release detection if the owner and operator can demonstrate to the state (or the state otherwise determines) that another method will detect a release of the regulated substance as effectively as other methods allowed under the state program for petroleum UST systems and that effective corrective action technology is available for the hazardous substance being stored that can be used to protect human health and the environment.

**§ 281.34 Release reporting, investigation, and confirmation.**

In order to be considered no less stringent than the corresponding federal requirements for release reporting, investigation, and confirmation, the state must have requirements that ensure all owners and operators conform with the following:

(a) Promptly investigate all suspected releases, including:

(1) When unusual operating conditions, release detection signals and environmental conditions at the site suggest a release of regulated substances may have occurred or the interstitial space may have been compromised; and

(2) When required by the implementing agency to determine the source of a release having an impact in the surrounding area; and

(b) Promptly report all confirmed underground releases and any spills and overfills that are not contained and cleaned up.

(c) Ensure that all owners and operators contain and clean up unreported spills and overfills in a manner that will protect human health and the environment.

**§ 281.35 Release response and corrective action.**

In order to be considered no less stringent than the corresponding federal requirements for release response and corrective action, the state must have requirements that ensure:

(a) All releases from UST systems are promptly assessed and further releases are stopped;

(b) Actions are taken to identify, contain and mitigate any immediate health and safety threats that are posed by a release (such activities include investigation and initiation of free product removal, if present);

(c) All releases from UST systems are investigated to determine if there are impacts on soil and groundwater, and any nearby surface waters. The extent of

soil and groundwater contamination must be delineated when a potential threat to human health and the environment exists.

(d) All releases from UST systems are cleaned up through soil and groundwater remediation and any other steps are taken, as necessary to protect human health and the environment;

(e) Adequate information is made available to the state to demonstrate that corrective actions are taken in accordance with the requirements of paragraphs (a) through (d) of this section. This information must be submitted in a timely manner that demonstrates its technical adequacy to protect human health and the environment; and

(f) In accordance with § 280.67, the state must notify the affected public of all confirmed releases requiring a plan for soil and groundwater remediation, and upon request provide or make available information to inform the interested public of the nature of the release and the corrective measures planned or taken.

**§ 281.36 Out-of-service UST systems and closure.**

In order to be considered no less stringent than the corresponding federal requirements for temporarily closed UST systems and permanent closure, the state must have requirements that ensure UST systems conform with the following:

(a) *Removal from service.* All new and existing UST systems temporarily closed must:

(1) Continue to comply with general operating requirements, release reporting and investigation, and release response and corrective action;

(2) Continue to comply with release detection requirements if regulated substances are stored in the tank;

(3) Be closed off to outside access; and

(4) Be permanently closed if the UST system has not been protected from corrosion and has not been used in one year, unless the state approves an extension after the owner and operator conducts a site assessment.

(b) *Permanent closure of UST systems.* All tanks and piping must be cleaned and permanently closed in a manner that eliminates the potential for safety hazards and any future releases. The owner or operator must notify the state of permanent UST system closures. The site must also be assessed to determine if there are any present or were past releases, and if so, release response and corrective action requirements must be complied with.

(c) All UST systems taken out of service before the effective date of the

federal regulations must permanently close in accordance with paragraph (b) of this section when directed by the implementing agency.

**§ 281.37 Financial responsibility for UST systems containing petroleum.**

(a) In order to be considered no less stringent than the federal requirements for financial responsibility for UST systems containing petroleum, the state requirements for financial responsibility for petroleum UST systems must ensure that:

(1) Owners and operators have \$1 million per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(2) Owners and operators not engaged in petroleum production, refining, and marketing and who handle a throughput of 10,000 gallons of petroleum per month or less have \$500,000 per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(3) Owners and operators of 1 to 100 petroleum USTs must have an annual aggregate of \$1 million; and

(4) Owners and operators of 101 or more petroleum USTs must have an annual aggregate of \$2 million.

(b) States may allow the use of a wide variety of financial assurance mechanisms to meet this requirement. Each financial mechanism must meet the following criteria in order to be no less stringent than the federal requirements. The mechanism must: Be valid and enforceable; be issued by a provider that is qualified or licensed in the state; not permit cancellation without allowing the state to draw funds; ensure that funds will only and directly be used for corrective action and third party liability costs; and require that the provider notify the owner or operator of any circumstances that would impair or suspend coverage.

(c) States must require owners and operators to maintain records that demonstrate compliance with the state financial responsibility requirements, and these records must be made readily available when requested by the implementing agency.

**§ 281.38 Lender liability.**

(a) A state program that contains a security interest exemption will be considered to be no less stringent than, and as broad in scope as, the federal program provided that the state's exemption:

(1) Mirrors the security interest exemption provided for in 40 CFR part 280, subpart I; or

(2) Achieves the same effect as provided by the following key criteria:

(i) A holder, meaning a person who maintains indicia of ownership primarily to protect a security interest in a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located, who does not participate in the management of the UST or UST system as defined under § 280.10 of this chapter, and who does not engage in petroleum production, refining, and marketing as defined under § 280.200(b) of this chapter is not:

(A) An “owner” of a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located for purposes of compliance with the requirements of 40 CFR part 280; or

(B) An “operator” of a petroleum UST or UST system for purposes of compliance with the requirements of 40 CFR part 280, provided the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(ii) [Reserved]

(b) [Reserved]

#### § 281.39 Operator training.

In order to be considered no less stringent than the corresponding federal requirements for operator training, the state must have an operator training program that meets the minimum requirements of section 9010 of the Solid Waste Disposal Act.

#### Subpart D—Adequate Enforcement of Compliance

##### § 281.40 Requirements for compliance monitoring program and authority.

(a) Any authorized representative of the state engaged in compliance inspections, monitoring, or testing must have authority to obtain by request any information from an owner or operator with respect to the UST system(s) that is necessary to determine compliance with the UST regulations.

(b) Any authorized representative of the state must have authority to require an owner or operator to conduct monitoring or testing.

(c) Authorized representatives must have the authority to enter any site or premises subject to UST regulations or in which records relevant to the operation of the UST system(s) are kept, and to copy these records, obtain samples of regulated substances, and inspect or conduct the monitoring or testing of UST system(s).

(d) State programs must have procedures for receipt, evaluation, retention, and investigation of records

and reports required of owners or operators and must provide for enforcement of failure to submit these records and reports.

(e)(1) State programs must have inspection procedures to determine, independent of information supplied by regulated persons, compliance with program requirements, and must provide for enforcement of failure to comply with the program requirements. States must maintain a program for systematic inspections of facilities subject to UST regulations in a manner designed to determine compliance or non-compliance, to verify accuracy of information submitted by owners or operators of regulated USTs, and to verify adequacy of methods used by owners or operators in developing that information.

(2) When inspections are conducted, samples taken, or other information gathered, these procedures must be conducted in a manner (for example, using proper “chain of custody” procedures) that will produce evidence admissible in an enforcement proceeding, or in court.

(f) Public effort in reporting violations must be encouraged and states must make available information on reporting procedures. State programs must maintain a program for investigating information obtained from the public about suspected violations of UST program requirements.

(g) The state must maintain the data collected through inspections and evaluation of records in such a manner that the implementing agency can monitor over time the compliance status of the regulated community. Any compilation, index, or inventory of such facilities and activities shall be made available to EPA upon request.

##### § 281.41 Requirements for enforcement authority.

(a) Any state administering a program must have the authority to implement the following remedies for violations of state program requirements:

(1) To restrain immediately and effectively any person by order or by suit in state court from engaging in any unauthorized activity that is endangering or causing damage to public health or the environment;

(2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement;

(3) To assess or sue to recover in court civil penalties as follows:

(i) Civil penalties for failure to notify or for submitting false information pursuant to tank notification requirements must be capable of being

assessed up to \$5,000 or more per violation.

(ii) Civil penalties for failure to comply with any state requirements or standards for existing or new tank systems must be capable of being assessed for each instance of violation, up to \$5,000 or more for each tank for each day of violation. If the violation is continuous, civil penalties shall be capable of being assessed up to \$5,000 or more for each day of violation.

(4) To prohibit the delivery, deposit, or acceptance of a regulated substance into an underground storage tank identified by the implementing agency to be ineligible for such delivery, deposit, or acceptance in accordance with section 9012 of the Solid Waste Disposal Act.

(b) The burden of proof and degree of knowledge or intent required under state law for establishing violations under paragraph (a)(3) of this section, must be no greater than the burden of proof or degree of knowledge or intent that EPA must provide when it brings an action under Subtitle I of the Solid Waste Disposal Act.

(c) A civil penalty assessed, sought, or agreed upon by the implementing agency(ies) under paragraph (a)(3) of this section must be appropriate to the violation.

##### § 281.42 Requirements for public participation.

Any state administering a program must provide for public participation in the state enforcement process by providing any one of the following three options:

(a) Authority that allows intervention analogous to Federal Rule 24(a)(2) from Title IV of the Federal Rules of Civil Procedure, and assurance by the state that it will not oppose intervention under the state analogue to Rule 24(a)(2) on the ground that the applicant's interest is adequately represented by the state.

(b) Authority that allows intervention of right in any civil action to obtain the remedies specified in § 281.41 by any citizen having an interest that is or may be adversely affected; or

(c) Assurance by the appropriate state agency that:

(1) It will provide notice and opportunity for public comment on all proposed settlements of civil enforcement actions (except where immediate action is necessary to adequately protect human health and the environment);

(2) It will investigate and provide responses to citizen complaints about violations; and

(3) It will not oppose citizen intervention when permissive intervention is allowed by statute, rule, or regulation.

#### **§ 281.43 Sharing of information.**

(a) States with approved programs must furnish EPA, upon request, any information in state files obtained or used in the administration of the state program. This information includes:

(1) Any information submitted to the state under a claim of confidentiality. The state must submit that claim to EPA when providing such information. Any information obtained from a state and subject to a claim of confidentiality will be treated in accordance with federal regulations in 40 CFR part 2; and

(2) Any information that is submitted to the state without a claim of confidentiality. EPA may make this information available to the public without further notice.

(b) EPA must furnish to states with approved programs, upon request, any information in EPA files that the state needs to administer its approved state program. Such information includes:

(1) Any information that is submitted to EPA without a claim of confidentiality; and

(2) Any information submitted to EPA under a claim of confidentiality, subject to the conditions in 40 CFR part 2.

### **Subpart E—Approval Procedures**

#### **§ 281.50 Approval procedures for state programs.**

(a) The following procedures are required for all applications, regardless of whether the application is for a partial or complete program, as defined in § 281.12.

(b) Before submitting an application to EPA for approval of a state program, the state must provide an opportunity for public notice and comment in the development of its underground storage tank program.

(c) When EPA receives a state program application, EPA will examine the application and notify the state whether its application is complete, in accordance with the application components required in § 281.20. The 180-day statutory review period begins only after EPA has determined that a complete application has been received.

(d) The state and EPA may by mutual agreement extend the review period.

(e) After receipt of a complete program application, the Administrator will tentatively determine approval or disapproval of the state program. EPA shall issue public notice of the tentative determination in the **Federal Register** and other mechanisms to attract state-

wide attention. Notice of the tentative determination must also:

(1) Afford the public 30 days after the notice to comment on the state's application and the Administrator's tentative determination; and

(2) Include a general statement of the areas of concern, if the Administrator indicates the state program may not be approved; and

(3) Note the availability for inspection by the public of the state program application; and

(4) Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination unless insufficient public interest is expressed, at which time the Regional Administrator may cancel the public hearing.

(f) Within 180 days of receipt of a complete state program application, the Administrator must make a final determination whether to approve the state program after review of all public comments. EPA will give notice of its determination in the **Federal Register** and codify the approved state program. The notice must include a statement of the reasons for this determination and a response to significant comments received.

#### **§ 281.51 Revision of approved state programs.**

(a) Either EPA or the approved state may initiate program revision. Program revision may be necessary when the controlling federal or state statutory or regulatory authority is changed or when responsibility for the state program is shifted to a new agency or agencies. The state must inform EPA of any proposed modifications to its basic statutory or regulatory authority or change in division of responsibility among state agencies. EPA will determine in each case whether a revision of the approved program is required. Approved state programs must submit a revised application within three years of any changes to this part that requires a program revision.

(b) Whenever the Administrator has reason to believe that circumstances have changed with respect to an approved state program or the federal program, the Administrator may request, and the state must provide, a revised application as prescribed by EPA.

(c) The Administrator will approve or disapprove program revisions based on the requirements of this part and Subtitle I of the Solid Waste Disposal Act pursuant to the procedures under this section, or under § 281.50 if EPA has reason to believe the proposed

revision will receive significant negative comment from the public.

(1) The Administrator must issue public notice of planned approval or disapproval of a state program revision in the **Federal Register** and other mechanisms to attract state-wide attention. The public notice must summarize the state program revision, indicate whether EPA intends to approve or disapprove the revision, and provide for an opportunity to comment for a period of 30 days.

(2) The Administrator's decision on the proposed revision becomes effective 60 days after the date of publication in the **Federal Register** in accordance with paragraph (c)(1) of this section, unless significant negative comment opposing the proposed revision is received during the comment period. If significant negative comment is received, EPA must notify the state and within 60 days after the date of publication, publish in the **Federal Register** either:

(i) A withdrawal of the immediate final decision, which will then be treated as a tentative decision in accordance with the applicable procedures of § 281.50(e) and (f); or

(ii) A notice that contains a response to significant negative comments and affirms either that the immediate final decision takes effect or reverses the decision.

(d) Revised state programs that receive approval must be codified in the **Federal Register**.

### **Subpart F—Withdrawal of Approval of State Programs**

#### **§ 281.60 Criteria for withdrawal of approval of state programs.**

The Administrator may withdraw program approval when the Agency determines that a state no longer has adequate regulatory or statutory authority or is not administering and enforcing an approved program in accordance with this part. The state must have adequate capability to administer and enforce the state program. In evaluating whether such capability exists, the Agency will consider whether the state is implementing an adequate enforcement program by evaluating the quality of compliance monitoring and enforcement actions.

#### **§ 281.61 Procedures for withdrawal of approval of state programs.**

(a) The following procedures apply when a state with an approved program voluntarily transfers to EPA those program responsibilities required by federal law.

(1) The state must give EPA notice of the proposed transfer, and submit, at

least 90 days before the transfer, a plan for the orderly transfer of all relevant program information necessary for EPA to administer the program.

(2) Within 30 days of receiving the state's transfer plan, EPA must evaluate the plan and identify any additional information needed by the federal government for program administration.

(3) At least 30 days before the transfer is to occur, EPA must publish notice of the transfer in the **Federal Register** and

other mechanisms to attract state-wide attention.

(b) The following procedures apply when the Administrator considers withdrawing approval.

(1) When EPA begins proceedings to determine whether to withdraw approval of a state program (either on its own initiative or in response to a petition from an interested person), withdrawal proceedings will be conducted in accordance with procedures set out in 40 CFR 271.23(b)

and (c), except for § 271.23(b)(8)(iii) to the extent that it deviates from requirements under § 281.60.

(2) If the state fails to take appropriate action within a reasonable time, not to exceed 120 days after notice from the Administrator that the state is not administering and enforcing its program in accordance with the requirements of this part, EPA will withdraw approval of the state's program.

[FR Doc. 2015-15914 Filed 7-14-15; 8:45 am]

**BILLING CODE 6560-50-P**

Rule Project No. 2016-019-334-CE

Executive Summary Attachment 2

House Bill 7 (84th Legislative Session)

1 AN ACT

2 relating to certain fiscal matters affecting governmental  
3 entities; reducing or affecting the amounts or rates of certain  
4 taxes, assessments, surcharges, and fees.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

6 SECTION 1. Section 102.054, Business & Commerce Code, is  
7 amended to read as follows:

8 Sec. 102.054. ALLOCATION OF CERTAIN REVENUE FOR SEXUAL  
9 ASSAULT PROGRAMS. The comptroller shall deposit the amounts [~~first~~  
10 ~~\$25 million~~] received from the fee imposed under this subchapter  
11 [~~in a state fiscal biennium~~] to the credit of the sexual assault  
12 program fund.

13 SECTION 2. Section 21.703, Education Code, is amended to  
14 read as follows:

15 Sec. 21.703. [~~EDUCATOR EXCELLENCE INNOVATION FUND,~~] AMOUNT  
16 OF GRANT AWARD. (a) [~~Each state fiscal year, the commissioner~~  
17 ~~shall deposit an amount determined by the General Appropriations~~  
18 ~~Act to the credit of the educator excellence innovation fund in the~~  
19 ~~general revenue fund.~~] Each state fiscal year, the agency shall  
20 [~~use money in the educator excellence innovation fund to~~] provide  
21 each school district approved on a competitive basis under this  
22 subchapter with a grant in an amount determined by the agency in  
23 accordance with commissioner rule.

24 (b) Not later than April 1 of each state fiscal year, the



1 agency shall provide written notice to each school district that  
2 will be provided a grant under this section that the district will  
3 be provided the grant and the amount of that grant.

4 SECTION 3. Section 41.002(a), Education Code, is amended to  
5 read as follows:

6 (a) A school district may not have a wealth per student that  
7 exceeds:

8 (1) the wealth per student that generates the amount  
9 of maintenance and operations tax revenue per weighted student  
10 available to a district with maintenance and operations tax revenue  
11 per cent of tax effort equal to the maximum amount provided per cent  
12 under Section 42.101(a) or (b), for the district's maintenance and  
13 operations tax effort equal to or less than the rate equal to the  
14 sum of the product of the state compression percentage, as  
15 determined under Section 42.2516, multiplied by the maintenance and  
16 operations tax rate adopted by the district for the 2005 tax year  
17 and any additional tax effort included in calculating the  
18 district's compressed tax rate under Section 42.101(a-1);

19 (2) the wealth per student that generates the amount  
20 of maintenance and operations tax revenue per weighted student  
21 available to the Austin Independent School District, as determined  
22 by the commissioner in cooperation with the Legislative Budget  
23 Board, for the first six cents by which the district's maintenance  
24 and operations tax rate exceeds the rate equal to the sum of the  
25 product of the state compression percentage, as determined under  
26 Section 42.2516, multiplied by the maintenance and operations tax  
27 rate adopted by the district for the 2005 tax year and any

1 additional tax effort included in calculating the district's  
2 compressed tax rate under Section 42.101(a-1), subject to Section  
3 41.093(b-1); or

4 (3) \$319,500, for the district's maintenance and  
5 operations tax effort that exceeds the amount of tax effort  
6 described by Subdivision (2) [~~first six cents by which the~~  
7 ~~district's maintenance and operations tax effort exceeds the rate~~  
8 ~~equal to the product of the state compression percentage, as~~  
9 ~~determined under Section 42.2516, multiplied by the maintenance and~~  
10 ~~operations tax rate adopted by the district for the 2005 tax year~~].

11 SECTION 4. Section 41.093(b-1), Education Code, is amended  
12 to read as follows:

13 (b-1) If the guaranteed level of state and local funds per  
14 weighted student per cent of tax effort under Section  
15 42.302(a-1)(1) for which state funds are appropriated for a school  
16 year is an amount at least equal to the amount of revenue per  
17 weighted student per cent of tax effort available to the Austin  
18 Independent School District, as determined by the commissioner in  
19 cooperation with the Legislative Budget Board, the commissioner, in  
20 computing the amounts described by Subsections (a)(1) and (2) and  
21 determining the cost of an attendance credit, shall exclude  
22 maintenance and operations tax revenue resulting from the tax rate  
23 described by Section 41.002(a)(2) [~~first six cents by which a~~  
24 ~~district's maintenance and operations tax rate exceeds the rate~~  
25 ~~equal to the product of the state compression percentage, as~~  
26 ~~determined under Section 42.2516, multiplied by the maintenance and~~  
27 ~~operations tax rate adopted by the district for the 2005 tax year~~].

1 SECTION 5. Section [42.101](#), Education Code, as effective  
2 September 1, 2015, is amended by adding Subsections (a-1), (a-2),  
3 and (c) to read as follows:

4 (a-1) Notwithstanding Subsection (a), for a school district  
5 that adopted a maintenance and operations tax rate for the 2005 tax  
6 year below the maximum rate permitted by law for that year, the  
7 district's compressed tax rate ("DCR") includes the portion of the  
8 district's current maintenance and operations tax rate in excess of  
9 the first six cents above the district's compressed tax rate, as  
10 defined by Subsection (a), until the district's compressed tax rate  
11 computed in accordance with this subsection is equal to the state  
12 maximum compressed tax rate ("MCR").

13 (a-2) Subsection (a-1) applies beginning with the 2017-2018  
14 school year. For the 2015-2016 and 2016-2017 school years, the  
15 board of trustees of a school district that adopted a maintenance  
16 and operations tax rate for the 2005 tax year below the maximum rate  
17 permitted by law for that year may choose to apply Subsection (a-1)  
18 to the calculation of the district's compressed tax rate ("DCR"). A  
19 board of trustees that chooses to apply Subsection (a-1) must  
20 notify the commissioner of the decision in writing not later than  
21 September 1 of the affected school year. This subsection expires  
22 September 1, 2018.

23 (c) This subsection applies to a school district for which  
24 the compressed tax rate ("DCR") is determined in accordance with  
25 Subsection (a-1). Any reduction in the district's adopted  
26 maintenance and operations tax rate is applied to the following  
27 components of the district's tax rate in the order specified:

1           (1) tax effort described by Section 42.302(a-1)(2);

2           (2) tax effort described by Section 42.302(a-1)(1);

3 and

4           (3) tax effort included in the determination of the  
5 district's compressed tax rate ("DCR") under Subsection (a-1).

6           SECTION 6. Section 42.2516, Education Code, is amended by  
7 adding Subsection (c-1) to read as follows:

8           (c-1) Revenue generated by the portion of a district's  
9 maintenance and operations tax rate included in calculating the  
10 district's compressed tax rate under Section 42.101(a-1) and local  
11 share under Section 42.252(a-1) is included in determining the  
12 amount to which a district is entitled under this section, but may  
13 not increase the total amount of revenue per weighted student to  
14 which the district is entitled under this section. This subsection  
15 expires September 1, 2017.

16           SECTION 7. Section 42.252, Education Code, is amended by  
17 adding Subsection (a-1) to read as follows:

18           (a-1) Notwithstanding Subsection (a), for a school district  
19 that adopted a maintenance and operations tax rate for the 2005 tax  
20 year below the maximum rate permitted by law for that year, the  
21 district's tax rate ("TR") includes the tax effort included in  
22 calculating the district's compressed tax rate under Section  
23 42.101(a-1).

24           SECTION 8. Subchapter E, Chapter 42, Education Code, is  
25 amended by adding Section 42.262 to read as follows:

26           Sec. 42.262. TAX RATE CONVERSION FUND. (a) Each fiscal  
27 year, the commissioner shall identify amounts appropriated in the

1 General Appropriations Act from the Foundation School Fund, to be  
2 deposited in the tax rate conversion fund in the general revenue  
3 fund. The amount identified by the commissioner shall be  
4 sufficient to provide additional state aid to school districts to  
5 which the compressed tax rate modified under Section 42.101(a-1)  
6 applies, in excess of the level of state aid to which the district  
7 would have been entitled had Section 42.101(a-1) not taken effect.

8 (b) For the purposes of state aid payments to school  
9 districts under this chapter, the tax rate conversion fund shall be  
10 considered to be used in the same manner as the foundation school  
11 fund.

12 SECTION 9. Section 42.302(a-1), Education Code, is amended  
13 to read as follows:

14 (a-1) [~~In this section, "wealth per student" has the meaning~~  
15 ~~assigned by Section 41.001.~~] For purposes of Subsection (a), the  
16 dollar amount guaranteed level of state and local funds per  
17 weighted student per cent of tax effort ("GL") for a school district  
18 is:

19 (1) the greater of the amount of district tax revenue  
20 per weighted student per cent of tax effort that would be available  
21 to the Austin Independent School District, as determined by the  
22 commissioner in cooperation with the Legislative Budget Board, if  
23 the reduction of the limitation on tax increases as provided by  
24 Section 11.26(a-1), (a-2), or (a-3), Tax Code, did not apply, or the  
25 amount of district tax revenue per weighted student per cent of tax  
26 effort used for purposes of this subdivision in the preceding  
27 school year, for the first six cents by which the district's

1 maintenance and operations tax rate exceeds the rate equal to the  
2 sum of the product of the state compression percentage, as  
3 determined under Section 42.2516, multiplied by the maintenance and  
4 operations tax rate adopted by the district for the 2005 tax year  
5 and any additional tax effort included in calculating the  
6 district's compressed tax rate under Section 42.101(a-1); and

7 (2) \$31.95, for the district's maintenance and  
8 operations tax effort that exceeds the amount of tax effort  
9 described by Subdivision (1).

10 SECTION 10. Section 61.5391(a), Education Code, is amended  
11 to read as follows:

12 (a) The physician education loan repayment program account  
13 is an account in the general revenue fund. The account is composed  
14 of:

- 15 (1) gifts and grants contributed to the account;  
16 (2) earnings on the principal of the account; and  
17 (3) other amounts deposited to the credit of the  
18 account, including:

19 (A) money deposited under Section [~~61.539(b) or~~  
20 61.5392;

21 (B) legislative appropriations; and

22 (C) money deposited under Section 155.2415, Tax  
23 Code.

24 SECTION 11. Chapter 62, Education Code, is amended by  
25 adding Subchapter H to read as follows:

26 SUBCHAPTER H. GOVERNOR'S UNIVERSITY RESEARCH INITIATIVE

27 Sec. 62.161. DEFINITIONS. In this subchapter:

1           (1) "Advisory board" means the governor's university  
2 research initiative advisory board.

3           (2) "Distinguished researcher" means a researcher who  
4 is:

5                   (A) a Nobel laureate or the recipient of an  
6 equivalent honor; or

7                   (B) a member of a national honorific society,  
8 such as the National Academy of Sciences, the National Academy of  
9 Engineering, or the Institute of Medicine, or an equivalent  
10 honorific organization.

11           (3) "Eligible institution" means a general academic  
12 teaching institution or health-related institution.

13           (4) "Fund" means the governor's university research  
14 initiative fund established under this subchapter.

15           (5) "General academic teaching institution" has the  
16 meaning assigned by Section [61.003](#).

17           (6) "Governing board" has the meaning assigned by  
18 Section [61.003](#).

19           (7) "Health-related institution" means a medical and  
20 dental unit as defined by Section [61.003](#) and any other public health  
21 science center, public medical school, or public dental school  
22 established by statute or in accordance with Chapter 61.

23           (8) "Office" means the Texas Economic Development and  
24 Tourism Office within the office of the governor.

25           (9) "Private or independent institution of higher  
26 education" has the meaning assigned by Section [61.003](#).

27           Sec. 62.162. ADMINISTRATION OF INITIATIVE. (a) The

1 governor's university research initiative is administered by the  
2 Texas Economic Development and Tourism Office within the office of  
3 the governor.

4 (b) From the governor's university research initiative  
5 fund, the office shall award matching grants to assist eligible  
6 institutions in recruiting distinguished researchers.

7 (c) The office may adopt any rules the office considers  
8 necessary to administer this subchapter.

9 Sec. 62.163. MATCHING GRANTS. (a) An eligible institution  
10 may apply to the office for a matching grant from the fund. Before  
11 approval or disapproval of a grant application, the office shall  
12 consider the recommendation of the advisory board regarding the  
13 grant proposal. If the office approves a grant application, the  
14 office shall award to the applicant institution a grant amount  
15 equal to the amount committed by the institution for the  
16 recruitment of a distinguished researcher, except as provided by  
17 Subsection (c)(2).

18 (b) A grant application must identify the source and amount  
19 of the eligible institution's matching funds and must demonstrate  
20 that the proposed use of the grant has the support of the  
21 institution's president and of the institution's governing board,  
22 the chair of the institution's governing board, or the chancellor  
23 of the university system, if the institution is a component of a  
24 university system. An applicant eligible institution may commit  
25 for matching purposes any funds of the institution available for  
26 that purpose other than appropriated general revenue.

27 (c) The office may set a deadline for grant applications for



1 each state fiscal year. After fully funding approved grant  
2 applications received during an application period for a state  
3 fiscal year, the office may reopen applications for that year and:

4 (1) award the full amount of matching funds from the  
5 fund for new applications; or

6 (2) approve previously disapproved applications  
7 submitted before the original application deadline for receipt of a  
8 reduced grant amount.

9 (d) A matching grant received by an eligible institution  
10 under this subchapter may not be considered as a basis to reduce,  
11 directly or indirectly, the amount of money otherwise appropriated  
12 to the institution.

13 (e) A matching grant may not be used by an eligible  
14 institution to recruit a distinguished researcher or other employee  
15 from:

16 (1) another eligible institution; or

17 (2) a private or independent institution of higher  
18 education.

19 (f) The office shall require an application and all  
20 supporting documentation to be submitted to the office  
21 electronically in the manner prescribed by the office.

22 Sec. 62.164. GRANT AWARD CRITERIA; PRIORITIES. (a) The  
23 office may award grants only to grant proposals that involve the  
24 recruitment of distinguished researchers in the fields of science,  
25 technology, engineering, mathematics, and medicine. The office  
26 shall give priority to proposals that:

27 (1) demonstrate a reasonable probability of enhancing

- 1 Texas' national and global economic competitiveness;  
2 (2) demonstrate a reasonable probability of creating a  
3 nationally or internationally recognized locus of research  
4 superiority or a unique locus of research;  
5 (3) are matched with a significant amount of funding  
6 from a federal or private source that may be transferred to the  
7 eligible institution;  
8 (4) are interdisciplinary and collaborative; or  
9 (5) include a strategic plan for intellectual property  
10 development and commercialization of technology.  
11 (b) The office may award a grant to a proposal that:  
12 (1) supports the recruitment of a distinguished  
13 researcher distinguished in, or to be engaged in, basic,  
14 translational, or applied research; or  
15 (2) proposes the recruitment of a distinguished  
16 researcher for new research capabilities of the eligible  
17 institution or to expand the institution's existing research  
18 capabilities.  
19 (c) A grant proposal should identify a specific  
20 distinguished researcher being recruited. In addition to the  
21 factors considered in evaluating proposals considered a priority  
22 under Subsection (a), the office may consider:  
23 (1) the likelihood that the researcher being recruited  
24 will not accept a research position with the applicant eligible  
25 institution without the institution's receipt of a matching grant  
26 under this subchapter;  
27 (2) the extent to which the subject matter of the

1 researcher's research offers the opportunity for interdisciplinary  
2 and collaborative research at the applicant eligible institution  
3 and with other eligible institutions; and

4 (3) any commercialization track record of the  
5 researcher being recruited.

6 Sec. 62.165. CONFIDENTIALITY. Information collected or  
7 obtained by the office or the advisory board concerning the  
8 identity of a particular distinguished researcher who is the  
9 subject of a grant proposal under this subchapter is confidential  
10 unless the researcher and the applicant eligible institution  
11 consent to disclosure of the information. The information remains  
12 confidential until the date, if any, on which the researcher enters  
13 into an employment relationship with the recruiting institution as  
14 contemplated in the grant proposal.

15 Sec. 62.166. ADVISORY BOARD. (a) The governor's  
16 university research initiative advisory board is established to  
17 assist the office with the review and evaluation of applications  
18 for funding of grant proposals under this subchapter. The advisory  
19 board shall make recommendations to the office for approval or  
20 disapproval of those applications.

21 (b) The advisory board must be composed of at least nine  
22 members appointed by the governor. Of the members of the board:

23 (1) one-third of the members, as nearly as possible,  
24 must have a background in finance;

25 (2) one-third of the members, as nearly as possible,  
26 must have an academic background in science, technology,  
27 engineering, or mathematics; and

1           (3) one-third of the members, as nearly as possible,  
2 must be public members.

3           (c) Chapter 2110, Government Code, does not apply to the  
4 size, composition, or duration of the advisory board.

5           (d) A member of the advisory board who is or has been  
6 employed by, is or has been a party to a contract for any purpose  
7 with, or is a student or former student of an applicant eligible  
8 institution may not be involved in the review, evaluation, or  
9 recommendation of a grant proposal made by that institution.

10          (e) An advisory board member is not required to be a  
11 resident of this state.

12          (f) Appointments to the advisory board shall be made without  
13 regard to the race, color, disability, sex, religion, age, or  
14 national origin of the appointees.

15          (g) Members of the advisory board serve without  
16 compensation but are entitled to reimbursement for actual and  
17 necessary expenses in attending meetings of the board or performing  
18 other official duties authorized by the office.

19          Sec. 62.167. TIMELY ACTION ON APPLICATIONS. (a) The  
20 advisory board shall meet in person or by teleconference to  
21 consider grant applications under this subchapter and shall strive  
22 to present to the office the board's recommendation for approval or  
23 disapproval of an application not later than the 14th day after the  
24 date the board receives the application.

25          (b) The office shall make a final decision regarding  
26 approval of a grant application not later than the 14th day after  
27 the date the office receives the advisory board's recommendation.

1       Sec. 62.168. GOVERNOR'S UNIVERSITY RESEARCH INITIATIVE  
2 FUND. (a) The governor's university research initiative fund is a  
3 dedicated account in the general revenue fund.

4       (b) The fund consists of:

5           (1) amounts appropriated or otherwise allocated or  
6 transferred by law to the fund; and

7           (2) gifts, grants, and other donations received for  
8 the fund.

9       (c) Sections 403.095 and 404.071, Government Code, do not  
10 apply to the fund.

11       (d) The fund may be used by the office only for the purposes  
12 of this subchapter, including for necessary expenses incurred in  
13 the administration of the fund and this subchapter.

14       SECTION 12. Subchapter B, Chapter 403, Government Code, is  
15 amended by adding Section 403.0143 to read as follows:

16       Sec. 403.0143. REPORT ON USE OF GENERAL REVENUE-DEDICATED  
17 ACCOUNTS. After each regular session of the legislature, the  
18 comptroller shall issue a report that itemizes each general  
19 revenue-dedicated account and the estimated balance and revenue in  
20 each account that is considered available for the purposes of  
21 certification of appropriations as provided by Section 403.095.  
22 The comptroller shall publish the report on the comptroller's  
23 Internet website.

24       SECTION 13. Section 403.0956, Government Code, is amended  
25 to read as follows:

26       Sec. 403.0956. REALLOCATION OF INTEREST ACCRUED ON CERTAIN  
27 DEDICATED REVENUE. Notwithstanding any other law, all interest or

1 other earnings that accrue on all revenue held in an account in the  
2 general revenue fund any part of which Section 403.095 makes  
3 available for certification under Section 403.121 are available for  
4 any general governmental purpose, and the comptroller shall deposit  
5 the interest and earnings to the credit of the general revenue  
6 fund. This section does not apply to:

7 (1) interest or earnings on revenue deposited in  
8 accordance with Section 51.008, Education Code;

9 (2) an account that accrues interest or other earnings  
10 on deposits of state or federal money the diversion of which is  
11 specifically excluded by federal law;

12 (3) the lifetime license endowment account; ~~[or]~~

13 (4) the game, fish, and water safety account;

14 (5) the coastal protection account;

15 (6) the Alamo complex account; or

16 (7) the artificial reef account.

17 SECTION 14. Section 420.008(c), Government Code, is amended  
18 to read as follows:

19 (c) The legislature may appropriate money deposited to the  
20 credit of the fund only to:

21 (1) the attorney general, for:

22 (A) sexual violence awareness and prevention  
23 campaigns;

24 (B) grants to faith-based groups, independent  
25 school districts, and community action organizations for programs  
26 for the prevention of sexual assault and programs for victims of  
27 human trafficking;

1 (C) grants for equipment for sexual assault nurse  
2 examiner programs, to support the preceptorship of future sexual  
3 assault nurse examiners, and for the continuing education of sexual  
4 assault nurse examiners;

5 (D) grants to increase the level of sexual  
6 assault services in this state;

7 (E) grants to support victim assistance  
8 coordinators;

9 (F) grants to support technology in rape crisis  
10 centers;

11 (G) grants to and contracts with a statewide  
12 nonprofit organization exempt from federal income taxation under  
13 Section 501(c)(3), Internal Revenue Code of 1986, having as a  
14 primary purpose ending sexual violence in this state, for programs  
15 for the prevention of sexual violence, outreach programs, and  
16 technical assistance to and support of youth and rape crisis  
17 centers working to prevent sexual violence; ~~and~~

18 (H) grants to regional nonprofit providers of  
19 civil legal services to provide legal assistance for sexual assault  
20 victims;

21 (I) grants to prevent sex trafficking and to  
22 provide services for victims of sex trafficking; and

23 (J) grants to carry out the purpose of this  
24 chapter, including standardizing the quality of services provided,  
25 preventing sexual assault, and improving services to survivors of  
26 sexual assault;

27 (2) the Department of State Health Services, to

1 measure the prevalence of sexual assault in this state and for  
2 grants to support programs assisting victims of human trafficking;

3 (3) the Institute on Domestic Violence and Sexual  
4 Assault or the Bureau of Business Research at The University of  
5 Texas at Austin, to conduct research on all aspects of sexual  
6 assault and domestic violence;

7 (4) Texas State University, for training and technical  
8 assistance to independent school districts for campus safety;

9 (5) the office of the governor, for grants to support  
10 sexual assault and human trafficking prosecution projects;

11 (6) the department [~~Department of Public Safety~~], to  
12 support sexual assault training for commissioned officers;

13 (7) the comptroller's judiciary section, for  
14 increasing the capacity of the sex offender civil commitment  
15 program;

16 (8) the Texas Department of Criminal Justice:

17 (A) for pilot projects for monitoring sex  
18 offenders on parole; and

19 (B) for increasing the number of adult  
20 incarcerated sex offenders receiving treatment;

21 (9) the Texas Juvenile Justice Department [~~Youth  
22 Commission~~], for increasing the number of incarcerated juvenile sex  
23 offenders receiving treatment;

24 (10) the comptroller, for the administration of the  
25 fee imposed on sexually oriented businesses under Section 102.052,  
26 Business & Commerce Code; [~~and~~]

27 (11) the supreme court, to be transferred to the Texas



1 ~~[Equal]~~ Access to Justice Foundation, or a similar entity, to  
2 provide victim-related legal services to sexual assault victims,  
3 including legal assistance with protective orders,  
4 relocation-related matters, victim compensation, and actions to  
5 secure privacy protections available to victims under law;

6 (12) any state agency or organization for the purpose  
7 of conducting human trafficking enforcement programs; and

8 (13) any other designated state agency for the purpose  
9 of preventing sexual assault or improving services for victims of  
10 sexual assault.

11 SECTION 15. The heading to Chapter 490, Government Code, is  
12 amended to read as follows:

13 CHAPTER 490. WINDING UP CONTRACTS AND STATE'S INVESTMENT  
14 PORTFOLIO IN CONNECTION WITH AWARDS FROM TEXAS [FUNDING FOR]  
15 EMERGING TECHNOLOGY FUND

16 SECTION 16. Section 490.101, Government Code, is amended by  
17 adding Subsection (b-1) to read as follows:

18 (b-1) The fund may be used only for the purposes described  
19 by Section 490.104.

20 SECTION 17. Subchapter C, Chapter 490, Government Code, is  
21 amended by adding Sections 490.104 and 490.105 to read as follows:

22 Sec. 490.104. MANAGEMENT OF INVESTMENT PORTFOLIO; WINDING  
23 UP AND FINAL LIQUIDATION. (a) In this section, "state's emerging  
24 technology investment portfolio" means:

25 (1) the equity positions in the form of stock or other  
26 security the governor took, on behalf of the state, in companies  
27 that received awards under the Texas emerging technology fund; and

1           (2) any other investments made by the governor, on  
2 behalf of the state, in connection with an award made under the  
3 Texas emerging technology fund.

4           (b) The Texas Treasury Safekeeping Trust Company shall  
5 manage and wind up the state's emerging technology investment  
6 portfolio. The trust company shall wind up the portfolio in a  
7 manner that, to the extent feasible, provides for the maximum  
8 return on the state's investment while also ensuring the return of  
9 the state's investment. In managing those investments through  
10 procedures and subject to restrictions that the trust company  
11 considers appropriate, the trust company may acquire, exchange,  
12 sell, supervise, manage, or retain any kind of investment that a  
13 prudent investor, exercising reasonable care, skill, and caution,  
14 would acquire or retain in light of the purposes, terms,  
15 distribution requirements, and other circumstances then prevailing  
16 pertinent to each investment. The trust company may recover its  
17 reasonable and necessary costs incurred in the management of the  
18 portfolio, including costs incurred in the retaining of  
19 professional or technical advisors, from the earnings on the  
20 investments in the portfolio.

21           (c) Any realized proceeds or other earnings from the sale of  
22 stock or other investments in the state's emerging technology  
23 investment portfolio, less the amount permitted to be retained for  
24 payment of its costs for managing the portfolio as provided by  
25 Subsection (b), shall be remitted by the Texas Treasury Safekeeping  
26 Trust Company to the comptroller for deposit in the general revenue  
27 fund.

1       (d) The Texas Treasury Safekeeping Trust Company has any  
2 power necessary to accomplish the purposes of this section.

3       (e) On final liquidation of the state's emerging technology  
4 investment portfolio, the Texas Treasury Safekeeping Trust Company  
5 shall promptly notify the comptroller of that occurrence. As soon  
6 as practicable after receiving that notice, the comptroller shall  
7 verify that the final liquidation has been completed and, if the  
8 comptroller so verifies, shall certify to the governor that the  
9 final liquidation of the portfolio has been completed. The  
10 governor shall post notice of the certification on the office of the  
11 governor's Internet website.

12       Sec. 490.105. CONFIDENTIALITY OF CERTAIN INFORMATION. (a)  
13 Except as provided by Subsection (b), information concerning the  
14 identity, background, finance, marketing plans, trade secrets, or  
15 other commercially or academically sensitive information of an  
16 individual or entity that was considered for or received an award  
17 from the Texas emerging technology fund is confidential unless the  
18 individual or entity consents to disclosure of the information.

19       (b) The following information collected in connection with  
20 the Texas emerging technology fund is public information and may be  
21 disclosed under Chapter 552, Government Code:

22               (1) the name and address of an individual or entity  
23 that received an award from the fund;

24               (2) the amount of funding received by an award  
25 recipient;

26               (3) a brief description of the project funded by the  
27 award;

1           (4) if applicable, a brief description of the equity  
2 position that the governor, on behalf of the state, has taken in an  
3 entity that received an award from the fund; and

4           (5) any other information with the consent of:

5                   (A) the governor;

6                   (B) the lieutenant governor;

7                   (C) the speaker of the house of representatives;

8 and

9                   (D) the individual or entity that received an  
10 award from the fund, if the information relates to that individual  
11 or entity.

12           SECTION 18. Section 614.104, Government Code, is amended by  
13 amending Subsections (a) and (b) and adding Subsection (d) to read  
14 as follows:

15           (a) The volunteer fire department assistance fund is an  
16 account in the general revenue fund and is composed of money  
17 collected under Chapter 2007 [~~Article 5.102~~], Insurance Code, and  
18 contributions to the fund from any other source.

19           (b) Except as provided by Subsections [~~Subsection~~] (c) and  
20 (d), money in the fund may be used only for a purpose under this  
21 subchapter.

22           (d) Money in the fund may be appropriated for a contribution  
23 to the Texas Emergency Services Retirement System subject to  
24 Section 865.015.

25           SECTION 19. Section 361.014(a), Health and Safety Code, is  
26 amended to read as follows:

27           (a) Revenue received by the commission under Section

1 361.013 shall be deposited in the state treasury to the credit of  
2 the commission. Of that revenue, 66.7 percent is dedicated to the  
3 commission's municipal solid waste permitting programs,  
4 enforcement programs, and site remediation programs, and to pay for  
5 activities that will enhance the state's solid waste management  
6 program. The commission shall issue a biennial report to the  
7 legislature describing in detail how the money was spent. The  
8 activities to enhance the state's solid waste management program  
9 may include:

10 (1) provision of funds for the municipal solid waste  
11 management planning fund and the municipal solid waste resource  
12 recovery applied research and technical assistance fund  
13 established by the Comprehensive Municipal Solid Waste Management,  
14 Resource Recovery, and Conservation Act (Chapter 363);

15 (2) conduct of demonstration projects and studies to  
16 help local governments of various populations and the private  
17 sector to convert to accounting systems and set rates that reflect  
18 the full costs of providing waste management services and are  
19 proportionate to the amount of waste generated;

20 (3) provision of technical assistance to local  
21 governments concerning solid waste management;

22 (4) establishment of a solid waste resource center in  
23 the commission and an office of waste minimization and recycling;

24 (5) provision of supplemental funding to local  
25 governments for the enforcement of this chapter, the Texas Litter  
26 Abatement Act (Chapter 365), and Chapters 391 and 683,  
27 Transportation Code;

1           (6) conduct of a statewide public awareness program  
2 concerning solid waste management;

3           (7) provision of supplemental funds for other state  
4 agencies with responsibilities concerning solid waste management,  
5 recycling, and other initiatives with the purpose of diverting  
6 recyclable waste from landfills;

7           (8) conduct of research to promote the development and  
8 stimulation of markets for recycled waste products;

9           (9) creation of a state municipal solid waste  
10 superfund, from funds appropriated, for:

11           (A) the cleanup of unauthorized tire dumps and  
12 solid waste dumps for which a responsible party cannot be located or  
13 is not immediately financially able to provide the cleanup;

14           (B) the cleanup or proper closure of abandoned or  
15 contaminated municipal solid waste sites for which a responsible  
16 party is not immediately financially able to provide the cleanup;  
17 and

18           (C) remediation, cleanup, and proper closure of  
19 unauthorized recycling sites for which a responsible party is not  
20 immediately financially able to perform the remediation, cleanup,  
21 and closure;

22           (10) provision of funds to mitigate the economic and  
23 environmental impacts of lead-acid battery recycling activities on  
24 local governments; ~~and~~

25           (11) provision of funds for the conduct of research by  
26 a public or private entity to assist the state in developing new  
27 technologies and methods to reduce the amount of municipal waste

1 disposed of in landfills; and

2 (12) provision of funds for grants to encourage  
3 entities located in an affected county or a nonattainment area, as  
4 defined by Section 386.001, to convert heavy-duty vehicles used for  
5 municipal solid waste collection into vehicles powered by natural  
6 gas engines.

7 SECTION 20. Section 361.133, Health and Safety Code, is  
8 amended by adding Subsection (c-1) to read as follows:

9 (c-1) Notwithstanding Subsection (c), money in the account  
10 attributable to fees imposed under Section 361.138 may be used for  
11 environmental remediation at the site of a closed battery recycling  
12 facility located in the municipal boundaries of a municipality with  
13 a population of greater than 120,000. This subsection expires  
14 September 30, 2016.

15 SECTION 21. Section 382.0622(a), Health and Safety Code, is  
16 amended to read as follows:

17 (a) Clean Air Act fees consist of:

18 (1) fees collected by the commission under Sections  
19 382.062, 382.0621, 382.202, and 382.302 and as otherwise provided  
20 by law;

21 (2) \$2 from the portion of each fee collected for  
22 inspections of vehicles other than mopeds and remitted to the state  
23 under Sections [~~Section~~] 548.501 and 548.503, Transportation Code;  
24 and

25 (3) fees collected that are required under Section 185  
26 of the federal Clean Air Act (42 U.S.C. Section 7511d).

27 SECTION 22. The heading to Section 780.002, Health and

1 Safety Code, is amended to read as follows:

2 Sec. 780.002. CERTAIN DEPOSITS TO ACCOUNT.

3 SECTION 23. Section 780.003(b), Health and Safety Code, is  
4 amended to read as follows:

5 (b) The account is composed of money deposited to the credit  
6 of the account under Sections 542.406 and 707.008, Transportation  
7 Code, and under Section 780.002 of this code~~[, and the earnings of~~  
8 ~~the account]~~.

9 SECTION 24. Section 2007.002, Insurance Code, is amended to  
10 read as follows:

11 Sec. 2007.002. ASSESSMENT. The comptroller shall assess  
12 against all insurers to which this chapter applies amounts for each  
13 state fiscal year necessary, as determined by the commissioner, to  
14 collect a combined total equal to the lesser of:

15 (1) the total amount that the General Appropriations  
16 Act appropriates from the volunteer fire department assistance fund  
17 account in the general revenue fund for that state fiscal year other  
18 than appropriations for contributions to the Texas Emergency  
19 Services Retirement System made under Section 614.104(d),  
20 Government Code; or [and]

21 (2) \$30 million.

22 SECTION 25. Chapter 140, Local Government Code, is amended  
23 by adding Section 140.011 to read as follows:

24 Sec. 140.011. LOCAL GOVERNMENTS DISPROPORTIONATELY  
25 AFFECTED BY PROPERTY TAX RELIEF FOR DISABLED VETERANS. (a) In this  
26 section:

27 (1) "General fund revenue" means revenue generated by



1 a local government from the following sources during a fiscal year  
2 and deposited in the dedicated general operating fund of the local  
3 government during that fiscal year:

4 (A) ad valorem taxes;

5 (B) sales and use taxes;

6 (C) franchise taxes, fees, or assessments  
7 charged for use of the local government's right-of-way;

8 (D) building and development fees, including  
9 permit and inspection fees;

10 (E) court fines and fees;

11 (F) other fees, assessments, and charges; and

12 (G) interest earned by the local government.

13 (2) "Local government" means:

14 (A) a municipality adjacent to a United States  
15 military installation; and

16 (B) a county in which a United States military  
17 installation is wholly or partly located.

18 (3) "Qualified local government" means a local  
19 government entitled to a disabled veteran assistance payment under  
20 this section.

21 (b) To serve the state purpose of ensuring that the cost of  
22 providing ad valorem tax relief to disabled veterans is shared  
23 equitably among the residents of this state, a local government is  
24 entitled to a disabled veteran assistance payment from the state  
25 for each fiscal year that the local government is a qualified local  
26 government. A local government is a qualified local government for  
27 a fiscal year if the amount of lost ad valorem tax revenue

1 calculated under Subsection (c) for that fiscal year is equal to or  
2 greater than two percent of the local government's general fund  
3 revenue for that fiscal year.

4 (c) For the purposes of this section, the amount of a local  
5 government's lost ad valorem tax revenue for a fiscal year is  
6 calculated by multiplying the ad valorem tax rate adopted by the  
7 local government under Section 26.05, Tax Code, for the tax year in  
8 which the fiscal year begins by the total appraised value of all  
9 property located in the local government that is granted an  
10 exemption from taxation under Section 11.131, Tax Code, for that  
11 tax year.

12 (d) A disabled veteran assistance payment made to a  
13 qualified local government for a fiscal year is calculated by  
14 subtracting from the local government's lost ad valorem tax revenue  
15 calculated under Subsection (c) for that fiscal year an amount  
16 equal to one percent of the local government's general fund revenue  
17 for that fiscal year.

18 (e) Not later than April 1 of the first year following the  
19 end of a fiscal year for which a qualified local government is  
20 entitled to a disabled veteran assistance payment, a qualified  
21 local government may submit an application to the comptroller to  
22 receive a disabled veteran assistance payment for that fiscal year.  
23 The application must be made on a form prescribed by the  
24 comptroller. The comptroller may require the qualified local  
25 government to submit an independent audit otherwise required by law  
26 to be prepared for the local government for the fiscal year for  
27 which a qualified local government is entitled to the payment.

1       (f) A qualified local government that does not submit an  
2 application to the comptroller by the date prescribed by Subsection  
3 (e) is not entitled to a disabled veteran assistance payment for the  
4 fiscal year for which that deadline applies.

5       (g) The comptroller shall review each application by a local  
6 government to determine whether the local government is entitled to  
7 a disabled veteran assistance payment. If the comptroller  
8 determines that the local government is entitled to the payment,  
9 the comptroller shall remit the payment from available funds to the  
10 qualified local government not later than the 30th day after the  
11 date the application for the payment is made.

12       (h) The comptroller shall transfer funds to a newly created  
13 account in the state treasury for the purpose of reimbursement of  
14 local governments under this section.

15       (i) The comptroller shall adopt rules necessary to  
16 implement this section.

17       SECTION 26. Section 81.0521(c), Natural Resources Code, is  
18 amended to read as follows:

19       (c) The [~~Two-thirds of the~~] proceeds from this fee,  
20 excluding any penalties collected in connection with the fee, shall  
21 be deposited to the oil and gas regulation and cleanup fund as  
22 provided by Section 81.067.

23       SECTION 27. Section 81.067(c), Natural Resources Code, is  
24 amended to read as follows:

25       (c) The fund consists of:  
26           (1) proceeds from bonds and other financial security  
27 required by this chapter and benefits under well-specific plugging

1 insurance policies described by Section 91.104(c) that are paid to  
2 the state as contingent beneficiary of the policies, subject to the  
3 refund provisions of Section 91.1091, if applicable;

4 (2) private contributions, including contributions  
5 made under Section 89.084;

6 (3) expenses collected under Section 89.083;

7 (4) fees imposed under Section 85.2021;

8 (5) costs recovered under Section 91.457 or 91.459;

9 (6) proceeds collected under Sections 89.085 and  
10 91.115;

11 (7) interest earned on the funds deposited in the  
12 fund;

13 (8) oil and gas waste hauler permit application fees  
14 collected under Section 29.015, Water Code;

15 (9) costs recovered under Section 91.113(f);

16 (10) hazardous oil and gas waste generation fees  
17 collected under Section 91.605;

18 (11) oil-field cleanup regulatory fees on oil  
19 collected under Section 81.116;

20 (12) oil-field cleanup regulatory fees on gas  
21 collected under Section 81.117;

22 (13) fees for a reissued certificate collected under  
23 Section 91.707;

24 (14) fees collected under Section 91.1013;

25 (15) fees collected under Section 89.088;

26 (16) fees collected under Section 91.142;

27 (17) fees collected under Section 91.654;

- 1 (18) costs recovered under Sections 91.656 and 91.657;  
2 (19) [~~two-thirds of the~~] fees collected under Section  
3 81.0521;  
4 (20) fees collected under Sections 89.024 and 89.026;  
5 (21) legislative appropriations;  
6 (22) any surcharges collected under Section 81.070;  
7 [~~and~~]  
8 (23) fees collected under Section 91.0115;  
9 (24) money deposited to the credit of the fund under  
10 Section 81.112;  
11 (25) fees collected under Subchapter E, Chapter 121,  
12 Utilities Code; and  
13 (26) fees collected under Section 27.0321, Water Code.

14 SECTION 28. Section 81.068, Natural Resources Code, as  
15 amended by Chapters 835 (H.B. 7) and 1075 (H.B. 3309), Acts of the  
16 83rd Legislature, Regular Session, 2013, is reenacted and amended  
17 to read as follows:

18 Sec. 81.068. PURPOSES OF OIL AND GAS REGULATION AND CLEANUP  
19 FUND. Money in the oil and gas regulation and cleanup fund may be  
20 used by the commission or its employees or agents for any purpose  
21 related to the regulation of oil and gas development, including oil  
22 and gas monitoring and inspections, oil and gas remediation, and  
23 oil and gas well plugging, the study and evaluation of electronic  
24 access to geologic data and surface casing depths necessary to  
25 protect usable groundwater in this state, alternative fuels  
26 programs under Section 81.0681, the administration of pipeline  
27 safety and regulatory programs, public information and services

1 related to those activities, and administrative costs and state  
2 benefits for personnel involved in those activities.

3 SECTION 29. Section [81.112](#), Natural Resources Code, is  
4 amended to read as follows:

5 Sec. 81.112. DISPOSITION OF TAX PROCEEDS. The tax shall be  
6 deposited in the oil and gas regulation and cleanup fund as provided  
7 by Section [81.067](#) [General Revenue Fund].

8 SECTION 30. Section [153.0535\(b\)](#), Occupations Code, is  
9 amended to read as follows:

10 (b) The board shall deposit each surcharge collected to the  
11 credit of the public assurance account. The public assurance  
12 account is an account in the general revenue fund that shall be  
13 appropriated only to the board to pay for the board's licensure and  
14 enforcement programs [~~program~~], including the expert physician  
15 panel.

16 SECTION 31. (a) Sections [201.354\(d\)](#) and (g), Occupations  
17 Code, are amended to read as follows:

18 (d) A person whose license has been expired for 90 days or  
19 less may renew the license by paying to the board a renewal fee that  
20 is equal to [~~the sum of~~] 1-1/2 times the annual renewal fee set by  
21 the board under Section [201.153\(a\)](#) [~~and the increase in that fee~~  
22 ~~required by Section [201.153\(b\)](#)~~]. If a person's license has been  
23 expired for more than 90 days but less than one year, the person may  
24 renew the license by paying to the board a renewal fee that is equal  
25 to [~~the sum of~~] two times the annual renewal fee set by the board  
26 under Section [201.153\(a\)](#) [~~and the increase in that fee required by~~  
27 ~~Section [201.153\(b\)](#)~~].

1 (g) A person may renew a license that has been expired for at  
2 least one year but not more than three years if:

3 (1) the board determines according to criteria adopted  
4 by board rule that the person has shown good cause for the failure  
5 to renew the license; and

6 (2) the person pays to the board:

7 (A) the annual renewal fee set by the board under  
8 Section 201.153(a) for each year in which the license was expired;  
9 and

10 (B) an additional fee in an amount equal to the  
11 sum of:

12 (i) the annual renewal fee set by the board  
13 under Section 201.153(a), multiplied by the number of years the  
14 license was expired, prorated for fractional years; and

15 (ii) two times the annual renewal fee set by  
16 the board under Section 201.153(a) [~~and~~

17 [~~(C) the increase in the annual renewal fee~~  
18 ~~required by Section 201.153(b)].~~

19 (b) Section 351.304(b), Occupations Code, is amended to  
20 read as follows:

21 (b) A person whose license has been expired for 90 days or  
22 less may renew the license by paying to the board a renewal fee that  
23 is equal to [~~the sum of~~] one and one-half times the annual renewal  
24 fee set by the board under Section 351.152 [~~and the additional fee~~  
25 ~~required by Section 351.153)]. If a person's license has been  
26 expired for more than 90 days but less than one year, the person may  
27 renew the license by paying to the board a renewal fee that is equal~~

1 to ~~[the sum of]~~ two times the annual renewal fee set by the board  
2 under Section 351.152 ~~[and the additional fee required by Section~~  
3 ~~351.153]~~.

4 (c) Section 351.306(b), Occupations Code, is amended to  
5 read as follows:

6 (b) The person must pay to the board a fee that is equal to  
7 the amount of the renewal fee set by the board under Section 351.152  
8 ~~[351.153(a)]~~.

9 (d) Sections 801.303(b) and (c), Occupations Code, are  
10 amended to read as follows:

11 (b) A person whose license has been expired for 90 days or  
12 less may renew the license by paying to the board a renewal fee that  
13 is equal to ~~[the sum of]~~ 1-1/2 times the renewal fee set by the board  
14 under Section 801.154(a) ~~[and the additional fee required by~~  
15 ~~Section 801.154(b), if applicable]~~.

16 (c) A person whose license has been expired for more than 90  
17 days but less than one year may renew the license by paying to the  
18 board a renewal fee that is equal to ~~[the sum of]~~ two times the  
19 renewal fee set by the board under Section 801.154(a) ~~[and the~~  
20 ~~additional fee required by Section 801.154(b), if applicable]~~.

21 (e) Section 801.305(b), Occupations Code, is amended to  
22 read as follows:

23 (b) The person must pay to the board a fee that is equal to  
24 the amount of the renewal fee set by the board under Section  
25 801.154(a) ~~[and the additional fee required by Section 801.154(b)]~~.

26 (f) Sections 901.155(a) and (c), Occupations Code, are  
27 amended to read as follows:



1 (a) The fee for the issuance or renewal of a license under  
2 this chapter consists of:

3 (1) the amount of the fee set by the board under  
4 Section [901.154](#); and

5 (2) [~~the fee increase imposed under Section [901.406](#),~~  
6 ~~and~~

7 [~~(3)~~] an additional \$10 annual fee to be deposited to  
8 the credit of the scholarship trust fund for fifth-year accounting  
9 students.

10 (c) The administrative costs incurred to collect the fee  
11 imposed under Subsection (a)(2) [~~(a)(3)~~] and to disburse the money  
12 may not exceed 10 percent of the total money collected.

13 (g) Section [901.405](#)(f), Occupations Code, is amended to  
14 read as follows:

15 (f) A person who was licensed in this state, moved to  
16 another state, and is currently licensed and has been in practice in  
17 the other state for the two years preceding the date of application  
18 may obtain a new license without reexamination. A person described  
19 by this subsection whose license has been revoked under Section  
20 [901.502](#)(3) or (4) may obtain a new license under this subsection. A  
21 person described by this subsection must pay to the board a fee that  
22 is equal to two times the normally required renewal fee for the  
23 license [~~and is not subject to additional fees under Section~~  
24 ~~[901.408](#)].~~

25 (h) Section [901.408](#)(a), Occupations Code, is amended to  
26 read as follows:

27 (a) A person, other than a person described by Section

1 901.405(f), who fails to pay the license renewal fee [~~or the~~  
2 ~~additional fee imposed under Section 901.407, as applicable,~~] and  
3 any late fee before the first anniversary of the due date of the  
4 renewal fee [~~or additional fee~~] may renew the person's license only  
5 by submitting to the board an application for renewal accompanied  
6 by payment of:

- 7 (1) all accrued fees, including late fees; and
- 8 (2) the direct administrative costs incurred by the  
9 board in renewing the person's license.

10 (i) Sections 1001.353(b) and (c), Occupations Code, are  
11 amended to read as follows:

12 (b) A person whose license has been expired for 90 days or  
13 less may renew the license by paying to the board the required  
14 annual renewal fee and [~~7~~] a late renewal fee [~~7~~, ~~and any applicable~~  
15 ~~increase in fees as required by Section 1001.206~~].

16 (c) A person whose license has been expired for more than 90  
17 days but less than two years may renew the license by paying to the  
18 board the required annual renewal fee and [~~7~~] a late renewal fee [~~7~~  
19 ~~and any applicable increase in fees as required by Section~~  
20 ~~1001.206~~] for each delinquent year or part of a year.

21 (j) Section 1001.355(d), Occupations Code, is amended to  
22 read as follows:

23 (d) To return to active status, a license holder on inactive  
24 status must:

- 25 (1) file with the board a written notice requesting  
26 reinstatement to active status;
- 27 (2) pay the fee for the annual renewal of the license

1 ~~[and the fee increase required by Section 1001.206]~~; and

2 (3) provide evidence satisfactory to the board that  
3 the person has complied with the continuing education requirements  
4 adopted by the board.

5 (k) Section 1101.154(a), Occupations Code, is amended to  
6 read as follows:

7 (a) The fee for the issuance or renewal of a:

8 (1) broker license is the amount of the fee set under  
9 Section ~~[Sections]~~ 1101.152 ~~[and 1101.153]~~ and an additional \$70  
10 ~~[\$20]~~ fee;

11 (2) salesperson license is the amount of the fee set  
12 under Section 1101.152 and an additional \$20 fee; and

13 (3) certificate of registration is the amount of the  
14 fee set under Section 1101.152 and an additional \$20 fee.

15 (1) The following provisions are repealed:

16 (1) Section 153.053, Occupations Code;

17 (2) Sections 201.153(b) and (c), Occupations Code;

18 (3) Section 254.004(b), Occupations Code;

19 (4) Section 351.153, Occupations Code;

20 (5) Section 501.153, Occupations Code;

21 (6) Sections 801.154(b), (c), and (d), Occupations  
22 Code;

23 (7) Section 901.406, Occupations Code;

24 (8) Section 901.407, Occupations Code;

25 (9) Section 901.410, Occupations Code;

26 (10) Section 1001.206, Occupations Code;

27 (11) Section 1051.652, Occupations Code;

- 1           (12) Section 1052.0541, Occupations Code;
- 2           (13) Section 1053.0521, Occupations Code;
- 3           (14) Section 1071.1521, Occupations Code;
- 4           (15) Section 1101.153, Occupations Code;
- 5           (16) Section 1105.003(e), Occupations Code;
- 6           (17) Section 1152.053, Occupations Code;
- 7           (18) Subchapter H, Chapter 191, Tax Code; and
- 8           (19) Section 41, The Securities Act (Article 581-41,
- 9 Vernon's Texas Civil Statutes).

10           (m) The changes in law made by this section do not affect a  
11 surcharge, additional fee, additional charge, fee increase, tax, or  
12 late fee imposed before the effective date of this Act, and the law  
13 in effect before the effective date of this Act is continued in  
14 effect for purposes of the liability for and collection of those  
15 surcharges, additional fees, additional charges, fee increases,  
16 taxes, and late fees.

17           SECTION 32. Section 1105.003(d), Occupations Code, is  
18 amended to read as follows:

19           (d) All [~~Except as provided by Subsection (e), all~~] fees and  
20 funds collected by the commission or the board and any funds  
21 appropriated to the commission or the board shall be deposited in  
22 interest-bearing deposit accounts in the Texas Treasury  
23 Safekeeping Trust Company. The comptroller shall contract with  
24 the commission and the board for the maintenance of the deposit  
25 accounts under terms comparable to a contract between a commercial  
26 banking institution and the institution's customers.

27           SECTION 33. Section 1701.156, Occupations Code, is amended

1 by adding Subsection (c) to read as follows:

2 (c) The Department of Public Safety may use money  
3 appropriated to the department from the account to award grants to  
4 local law enforcement agencies for training on incident-based  
5 reporting systems to be used for reporting information and  
6 statistics concerning criminal offenses committed in this state.  
7 The department shall adopt rules governing the award of grants by  
8 the department under this subsection.

9 SECTION 34. Section 1701.157, Occupations Code, is amended  
10 by adding Subsection (a-1) to read as follows:

11 (a-1) Subsection (a) does not apply to money appropriated to  
12 the Department of Public Safety from the account for the purpose of  
13 awarding grants to local law enforcement agencies for training on  
14 incident-based reporting systems under Section 1701.156(c).

15 SECTION 35. Section 151.0515(b), Tax Code, is amended to  
16 read as follows:

17 (b) In each county in this state, a surcharge is imposed on  
18 the retail sale, lease, or rental of new or used equipment in an  
19 amount equal to 1.5 [~~two~~] percent of the sale price or the lease or  
20 rental amount.

21 SECTION 36. Section 155.2415, Tax Code, is amended to read  
22 as follows:

23 Sec. 155.2415. ALLOCATION OF CERTAIN REVENUE TO PROPERTY  
24 TAX RELIEF FUND AND CERTAIN OTHER FUNDS. (a) Notwithstanding  
25 Section 155.241, the proceeds from the collection of taxes imposed  
26 by Section 155.0211 shall be allocated as follows:

27 (1) the amount of the proceeds that is equal to the

1 amount that, if the taxes imposed by Section 155.0211 were imposed  
2 at a rate of 40 percent of the manufacturer's list price, exclusive  
3 of any trade discount, special discount, or deal, would be  
4 attributable to the portion of that tax rate in excess of 35.213  
5 percent, shall be deposited to the credit of the property tax relief  
6 fund under Section 403.109, Government Code;

7 (2) the amount of the proceeds that is equal to the  
8 amount that would be attributable to a tax rate of 35.213 percent of  
9 the manufacturer's list price, exclusive of any trade discount,  
10 special discount, or deal, if the taxes were imposed by Section  
11 155.0211 at that rate, shall be deposited to the credit of the  
12 general revenue fund; and

13 (3) 100 percent of the remaining proceeds shall be  
14 deposited to the credit of:

15 (A) the physician education loan repayment  
16 program account established under Subchapter J, Chapter 61,  
17 Education Code; or

18 (B) the general revenue fund, if the comptroller  
19 determines that the unencumbered beginning balance of the physician  
20 education loan repayment account established under Subchapter J,  
21 Chapter 61, Education Code, is sufficient to fund appropriations  
22 and other direct and indirect costs from that account for the  
23 fulfillment of existing and expected physician loan repayment  
24 commitments during the current state fiscal biennium.

25 (b) Proceeds deposited in accordance with Subsection  
26 (a)(3)(B) may be appropriated only for health care purposes.

27 SECTION 37. Section 504.6012, Transportation Code, is

1 amended to read as follows:

2           Sec. 504.6012. ELIMINATION OF DEDICATED REVENUE ACCOUNTS;  
3 REVENUES IN TRUST. (a) Notwithstanding any other law [~~provision of~~  
4 ~~this subchapter~~], not later than September 30, 2015 [~~2013~~], the  
5 comptroller shall eliminate all dedicated accounts established for  
6 specialty license plates [~~under this subchapter~~] and shall set  
7 aside the balances of those dedicated accounts so that the balances  
8 may be appropriated only for the purposes intended as provided by  
9 the dedications.

10           (b) On and after September 1, 2015 [~~2013~~], the portion of a  
11 fee payable [~~under this subchapter~~] that is designated for deposit  
12 to a dedicated account shall be paid instead to the credit of an  
13 account in a trust fund created by the comptroller outside the  
14 general revenue fund. The comptroller shall administer the trust  
15 fund and accounts and may allocate the corpus and earnings on each  
16 account only in accordance with the dedications of the revenue  
17 deposited to the trust fund accounts.

18           SECTION 38. Section 542.406(c), Transportation Code, is  
19 amended to read as follows:

20           (c) Not later than the 60th day after the end of a local  
21 authority's fiscal year, after deducting amounts the local  
22 authority is authorized by Subsection (d) to retain, the local  
23 authority shall:

24           (1) send 50 percent of the revenue derived from civil  
25 or administrative penalties collected by the local authority under  
26 this section to the comptroller for deposit to the credit of the  
27 designated [~~regional~~] trauma facility and emergency medical

1 services account established under Section 780.003 [~~782.002~~],  
2 Health and Safety Code; and

3 (2) deposit the remainder of the revenue in a special  
4 account in the local authority's treasury that may be used only to  
5 fund traffic safety programs, including pedestrian safety  
6 programs, public safety programs, intersection improvements, and  
7 traffic enforcement.

8 SECTION 39. Section 707.008(a), Transportation Code, is  
9 amended to read as follows:

10 (a) Not later than the 60th day after the end of a local  
11 authority's fiscal year, after deducting amounts the local  
12 authority is authorized by Subsection (b) to retain, the local  
13 authority shall:

14 (1) send 50 percent of the revenue derived from civil  
15 or administrative penalties collected by the local authority under  
16 this section to the comptroller for deposit to the credit of the  
17 designated [~~regional~~] trauma facility and emergency medical  
18 services account established under Section 780.003 [~~782.002~~],  
19 Health and Safety Code; and

20 (2) deposit the remainder of the revenue in a special  
21 account in the local authority's treasury that may be used only to  
22 fund traffic safety programs, including pedestrian safety  
23 programs, public safety programs, intersection improvements, and  
24 traffic enforcement.

25 SECTION 40. Section 708.103, Transportation Code, is  
26 amended by amending Subsection (b) and adding Subsection (c) to  
27 read as follows:



1           (b) Except as provided by Subsection (c), the [~~The~~] amount  
2 of a surcharge under this section is \$250 per year.

3           (c) The amount of a surcharge under this section is \$125 per  
4 year if the person:

5                 (1) has been convicted of an offense under Section  
6 601.191, and no other offense described by Subsection (a); and

7                 (2) establishes financial responsibility under  
8 Section 601.051 not later than the 60th day after the date of the  
9 offense through a motor vehicle liability insurance policy that:

10                         (A) complies with Subchapter D, Chapter 601; and

11                         (B) is prepaid and valid for at least a six-month  
12 period.

13           SECTION 41. Section 708.104, Transportation Code, is  
14 amended by amending Subsection (b) and adding Subsection (b-1) to  
15 read as follows:

16           (b) Except as provided by Subsection (b-1), the [~~The~~] amount  
17 of a surcharge under this section is \$100 per year.

18           (b-1) The amount of a surcharge under this section is \$50  
19 per year if the person obtains a driver's license not later than the  
20 60th day after the date of the offense.

21           SECTION 42. Section 39.9039(b), Utilities Code, is amended  
22 to read as follows:

23           (b) Notwithstanding Section 39.903(e), money in the system  
24 benefit fund may be appropriated:

25                 (1) for the state fiscal year beginning September 1,  
26 2013, a program established by the commission to assist low-income  
27 electric customers by providing a reduced rate for the months of

1 September, 2013, and May through August, 2014, in the manner  
2 prescribed by Section 39.903(h) at a rate of up to 82 percent;

3 (2) for the state fiscal year beginning September 1,  
4 2014, a program established by the commission to assist low-income  
5 electric customers by providing a reduced rate for the months of  
6 September, 2014, and May through August, 2015, in the manner  
7 prescribed by Section 39.903(h) at a rate of up to 15 percent;

8 (3) for the state fiscal year beginning September 1,  
9 2015, a program established by the commission to assist low-income  
10 electric customers by providing a reduced rate [~~for the months of~~  
11 ~~September, 2015, and May through August, 2016,~~] in the manner  
12 prescribed by Section 39.903(h) at a rate the commission determines  
13 is necessary to exhaust the system benefit fund [~~of up to 15~~  
14 ~~percent~~]; and

15 (4) for customer education programs and  
16 administrative expenses incurred by the commission in implementing  
17 and administering this chapter.

18 SECTION 43. Section 121.211(h), Utilities Code, is amended  
19 to read as follows:

20 (h) A fee collected under this section shall be deposited to  
21 the credit of the oil and gas regulation and cleanup [~~general~~  
22 ~~revenue~~] fund as provided by Section 81.067, Natural Resources Code  
23 [~~to be used for the pipeline safety and regulatory program~~].

24 SECTION 44. Section 26.3574(b-1), Water Code, is amended to  
25 read as follows:

26 (b-1) The commission by rule shall set the amount of the fee  
27 in Subsection (b) in an amount not to exceed the amount necessary to

1 cover the agency's costs of administering this subchapter, as  
2 indicated by the amount appropriated by the legislature from the  
3 petroleum storage tank remediation account for that purpose, not  
4 including any amount appropriated by the legislature from the  
5 petroleum storage tank remediation account for the purpose of the  
6 monitoring or remediation of releases occurring on or before  
7 December 22, 1998.

8 SECTION 45. Section 27.0321, Water Code, is amended to read  
9 as follows:

10 Sec. 27.0321. APPLICATION FEE. (a) With each application  
11 for an oil and gas waste disposal well permit, the applicant shall  
12 submit to the railroad commission a nonrefundable fee of \$100.

13 (b) The fee collected under this section shall be deposited  
14 to the credit of the oil and gas regulation and cleanup fund as  
15 provided by Section 81.067, Natural Resources Code.

16 SECTION 46. The following provisions of law, including  
17 provisions amended by S.B. 219, Acts of the 84th Legislature,  
18 Regular Session, 2015, are repealed:

- 19 (1) Section 102.055, Business & Commerce Code;
- 20 (2) Section 61.539, Education Code;
- 21 (3) Section 780.003(c), Health and Safety Code;
- 22 (4) Chapter 782, Health and Safety Code; and
- 23 (5) Section 81.113, Natural Resources Code.

24 SECTION 47. The following laws are repealed:

- 25 (1) Sections 490.101(c), (d), (e), (f), (f-1), (g),  
26 (h), and (i), Government Code;
- 27 (2) Section 490.102, Government Code; and

1           (3) Subchapters A, B, D, E, F, and G, Chapter 490,  
2 Government Code.

3           SECTION 48. (a) The Texas emerging technology fund is  
4 continued solely for the purposes of winding up the contracts  
5 governing awards from that fund and the state's portfolio of equity  
6 positions and other investments in connection with awards from that  
7 fund in accordance with Section 490.104, Government Code, as added  
8 by this Act. The Texas emerging technology fund is abolished and  
9 Sections 490.101(a), (b), and (b-1), Government Code, are repealed  
10 when the comptroller certifies to the governor as provided by  
11 Section 490.104, Government Code, as added by this Act, that the  
12 final liquidation of the state's portfolio of equity positions and  
13 other investments by the Texas Treasury Safekeeping Trust Company  
14 has been completed. On the effective date of this Act, any  
15 unencumbered fund balance in the Texas emerging technology fund may  
16 be appropriated in accordance with Subsection (a-1) of this  
17 section.

18           (a-1) Any unencumbered balance of the Texas emerging  
19 technology fund may be appropriated only to one or more of the  
20 following:

21           (1) the Texas Research Incentive Program (TRIP) under  
22 Subchapter F, Chapter 62, Education Code;

23           (2) the Texas research university fund, subject to  
24 Subsection (b) of this section;

25           (3) the governor's university research initiative fund  
26 established under Subchapter H, Chapter 62, Education Code, as  
27 added by this Act;

1           (4) the Texas Enterprise Fund established under  
2 Section 481.078, Government Code; and

3           (5) the comptroller for the purposes of expenses  
4 incurred in managing the state's portfolio of equity positions and  
5 other investments in connection with awards from the Texas emerging  
6 technology fund in accordance with Section 490.104, Government  
7 Code, as added by this Act.

8           (b) The authority of the Texas research university fund to  
9 receive the appropriation described by Subsection (a-1) of this  
10 section is contingent on passage and enactment of H.B. 1000, or  
11 similar legislation relating to state support for general academic  
12 teaching institutions in this state by the 84th Legislature,  
13 Regular Session, 2015, that renames the existing Texas competitive  
14 knowledge fund and changes the purposes for which the fund can be  
15 used.

16           (c) The abolishment by this Act of the Texas emerging  
17 technology fund and the repeal of provisions of Chapter 490,  
18 Government Code, relating to that fund do not affect the validity of  
19 an agreement between the governor and an award recipient or a person  
20 to be awarded money that is entered into under Chapter 490 before  
21 September 1, 2015.

22           (d) Money that was deposited in the Texas emerging  
23 technology fund as a gift, grant, or donation under Chapter 490,  
24 Government Code, and that is encumbered by the specific terms of the  
25 gift, grant, or donation may be spent only in accordance with the  
26 terms of the gift, grant, or donation.

27           (e) Money from the Texas emerging technology fund that is

1 encumbered because the money is awarded or otherwise obligated by  
2 agreement before September 1, 2015, but under the terms of the award  
3 or agreement will not be distributed until a later date shall be  
4 distributed in accordance with the terms of the award or agreement.  
5 If the governor determines that the money will not be distributed in  
6 accordance with the terms of the award or agreement, the governor  
7 shall certify that fact to the comptroller. On that certification,  
8 the comptroller shall make that money available in the general  
9 revenue fund to be used in accordance with legislative  
10 appropriation.

11 (f) On or after the effective date of this Act, the  
12 following payments or other amounts shall be sent to the  
13 comptroller for deposit to the Texas emerging technology fund to be  
14 used solely for the purposes of winding up the state's portfolio of  
15 equity positions and other investments as provided by Sections  
16 [490.101\(b-1\)](#) and [490.104](#), Government Code, as added by this Act:

17 (1) any royalties, revenues, and other financial  
18 benefits realized from a project undertaken with money from the  
19 Texas emerging technology fund, as provided by a contract described  
20 by Section [490.103](#), Government Code;

21 (2) any interest or proceeds received as a result of a  
22 transaction authorized by former Section [490.101\(h\)](#), Government  
23 Code;

24 (3) any money returned or repaid to the state by an  
25 award recipient pursuant to an agreement entered into under former  
26 Section [490.101\(g\)](#), Government Code;

27 (4) any money derived from an interest the state

1 retained in a capital improvement pursuant to an agreement entered  
2 into under former Section 490.101(g), Government Code; and

3 (5) any fund money returned by an entity that fails to  
4 perform an action guaranteed by a contract entered into under  
5 former Section 490.154 or 490.203, Government Code.

6 SECTION 49. A regional center of innovation and  
7 commercialization established under Section 490.152, Government  
8 Code, is abolished on the effective date of this Act. Each center  
9 shall transfer to the office of the governor a copy of any meeting  
10 minutes required to be retained under Section 490.1521, Government  
11 Code, as that section existed immediately before that section's  
12 repeal by this Act, and the office shall retain the minutes for the  
13 period prescribed by that section.

14 SECTION 50. Except as provided by this Act, on September 1,  
15 2015, the following powers, duties, functions, and activities  
16 performed by the office of the governor immediately before that  
17 date are transferred to the Texas Treasury Safekeeping Trust  
18 Company:

19 (1) all powers, duties, functions, and activities  
20 related to equity positions in the form of stock or other security  
21 the governor has taken, on behalf of the state, in companies that  
22 received awards under the Texas emerging technology fund before  
23 September 1, 2015; and

24 (2) all powers, duties, functions, and activities  
25 related to other investments made by the governor, on behalf of the  
26 state, in connection with an award made under the Texas emerging  
27 technology fund before September 1, 2015.

1 SECTION 51. As soon as practicable, but not later than  
2 December 1, 2015, the comptroller of public accounts shall develop  
3 the disabled veteran assistance payment form required by Section  
4 140.011(e), Local Government Code, as added by this Act.

5 SECTION 52. A local government that is a qualified local  
6 government, as that term is defined by Section 140.011(a), Local  
7 Government Code, as added by this Act, for a fiscal year that began  
8 in the 2014 tax year is eligible to apply for a disabled veteran  
9 assistance payment as prescribed by Section 140.011, Local  
10 Government Code, for that fiscal year.

11 SECTION 53. Not later than January 1, 2016, the Department  
12 of Public Safety shall adopt rules as required by Section  
13 1701.156(c), Occupations Code, as added by this Act.

14 SECTION 54. The changes in law made by this Act to Sections  
15 708.103 and 708.104, Transportation Code, apply to a surcharge  
16 pending on the effective date of this Act, regardless of when the  
17 surcharge was assessed.

18 SECTION 55. Not later than the 90th day of the state fiscal  
19 year beginning September 1, 2015, the comptroller shall transfer  
20 any remaining balance in the educator excellence innovation fund  
21 account No. 5135 to the credit of the general revenue fund.

22 SECTION 56. Not later than the 90th day of the state fiscal  
23 year beginning September 1, 2015, the comptroller shall transfer  
24 any remaining balance in the regional trauma account No. 5137 to the  
25 credit of the designated trauma facility and EMS account No. 5111 in  
26 the general revenue fund.

27 SECTION 57. (a) Notwithstanding Section 2007.002,



1 Insurance Code, as amended by this Act, for the state fiscal years  
2 beginning September 1, 2015, and beginning September 1, 2016, the  
3 comptroller shall assess against all insurers to which Chapter  
4 2007, Insurance Code, applies amounts for that state fiscal year  
5 necessary, as determined by the commissioner of insurance, to  
6 collect a combined total equal to the lesser of:

7 (1) the total amount that the General Appropriations  
8 Act appropriates from the volunteer fire department assistance fund  
9 account in the general revenue fund for that state fiscal year other  
10 than:

11 (A) appropriations for contributions to the  
12 Texas Emergency Services Retirement System made under Section  
13 [614.104\(d\)](#), Government Code, as added by this Act; and

14 (B) appropriations to the Texas A&M Forest  
15 Service for grants to volunteer fire departments in a total amount  
16 not to exceed \$11,500,000; or

17 (2) \$30 million.

18 (b) This section expires September 1, 2017.

19 SECTION 58. The changes in law made by this Act do not  
20 affect a surcharge, additional fee, additional charge, fee  
21 increase, tax, or late fee imposed before the effective date of this  
22 Act, and the law in effect before the effective date of this Act is  
23 continued in effect for purposes of the liability for and  
24 collection of those surcharges, additional fees, additional  
25 charges, fee increases, taxes, and late fees.

26 SECTION 59. This Act takes effect September 1, 2015.

---

President of the Senate

---

Speaker of the House

I certify that H.B. No. 7 was passed by the House on April 28, 2015, by the following vote: Yeas 137, Nays 0, 1 present, not voting; and that the House concurred in Senate amendments to H.B. No. 7 on May 29, 2015, by the following vote: Yeas 144, Nays 2, 2 present, not voting.

---

Chief Clerk of the House

I certify that H.B. No. 7 was passed by the Senate, with amendments, on May 26, 2015, by the following vote: Yeas 31, Nays 0.

---

Secretary of the Senate

APPROVED: \_\_\_\_\_

Date

---

Governor

Rule Project No. 2016-019-334-CE

Executive Summary Attachment 3

Senate Bill 1557 (85th Legislative Session)

AN ACT

relating to the administration of gasoline and diesel fuel motor fuels taxes and the fee on the delivery of certain petroleum products.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

SECTION 1. Section 162.012(a), Tax Code, is amended to read as follows:

(a) A person licensed under this chapter or required to be licensed under this chapter, or other user, who fails to keep a record, issue an invoice, or file a return or report required by this chapter is presumed to have sold or used for taxable purposes all motor fuel shown by an audit by the comptroller to have been sold to the license holder or other user. Motor fuel unaccounted for is presumed to have been sold or used for taxable purposes. If an exporter claims an exemption under Section 162.104(a)(4) [~~162.104(a)(4)(B)~~] or 162.204(a)(4) [~~162.204(a)(4)(B)~~] and fails to report subsequent tax-free sales in this state of the motor fuel for which the exemption was claimed as required by Section 162.1155 or 162.2165, or to produce proof of payment of tax to the destination state or proof that the transaction was exempt in the destination state, the exporter is presumed to have not paid the destination state's tax or this state's tax on the [~~exported~~] motor fuel and the comptroller shall assess the tax imposed by this chapter on the [~~exported~~] motor fuel against the exporter. The

1 comptroller may fix or establish the amount of taxes, penalties,  
2 and interest due this state from the records of deliveries or from  
3 any records or information available. If a tax claim, as developed  
4 from this procedure, is not paid, after the opportunity to request a  
5 redetermination, the claim and any audit made by the comptroller or  
6 any report filed by the license holder or other user is evidence in  
7 any suit or judicial proceedings filed by the attorney general and  
8 is prima facie evidence of the correctness of the claim or audit. A  
9 prima facie presumption of the correctness of the claim may be  
10 overcome at the trial by evidence adduced by the license holder or  
11 other user.

12 SECTION 2. Section 162.101, Tax Code, is amended by adding  
13 Subsections (e-1) and (e-2) to read as follows:

14 (e-1) A tax is imposed on gasoline that is otherwise exempt  
15 from taxation under Section 162.104(a)(4) or (7) if the gasoline is  
16 sold in this state to a person who does not hold a license under  
17 Section 162.105(1), (2), (3), (4), or (6). The person that sold the  
18 gasoline is liable for and shall collect the tax.

19 (e-2) A tax is imposed on gasoline that is otherwise exempt  
20 from taxation under Section 162.104(a)(4) or (7) if before export  
21 the gasoline is sold in this state to a person who holds a license  
22 under Section 162.105(1), (2), (3), (4), or (6) and the gasoline is  
23 delivered to a destination in this state. The person that  
24 redirected the delivery of the gasoline to a destination in this  
25 state is liable for and shall pay the tax.

26 SECTION 3. Sections 162.104(a), (d), and (f), Tax Code, are  
27 amended to read as follows:

1 (a) The tax imposed by this subchapter does not apply to  
2 gasoline:

3 (1) sold to the United States for its exclusive use,  
4 provided that the exemption does not apply with respect to fuel sold  
5 or delivered to a person operating under a contract with the United  
6 States;

7 (2) sold to a public school district in this state for  
8 the district's exclusive use;

9 (3) sold to a commercial transportation company or a  
10 metropolitan rapid transit authority operating under Chapter 451,  
11 Transportation Code, that provides public school transportation  
12 services to a school district under Section 34.008, Education Code,  
13 and that uses the gasoline only to provide those services;

14 (4) exported by either a licensed supplier or a  
15 licensed exporter from this state to any other state, provided  
16 that~~+~~

17 ~~[(A) for gasoline in a situation described by~~  
18 ~~Subsection (d),] the bill of lading indicates the destination state~~  
19 ~~and the supplier collects the destination state tax~~+, or~~~~

20 ~~[(B) for gasoline in a situation described by~~  
21 ~~Subsection (e), the bill of lading indicates the destination state,~~  
22 ~~the gasoline is subsequently exported, and the exporter is licensed~~  
23 ~~in the destination state to pay that state's tax and has an~~  
24 ~~exporter's license issued under this subchapter];~~

25 (5) moved by truck or railcar between licensed  
26 suppliers or licensed permissive suppliers and in which the  
27 gasoline removed from the first terminal comes to rest in the second

1 terminal, provided that the removal from the second terminal rack  
2 is subject to the tax imposed by this subchapter;

3 (6) delivered or sold into a storage facility of a  
4 licensed aviation fuel dealer from which gasoline will be delivered  
5 solely into the fuel supply tanks of aircraft or aircraft servicing  
6 equipment, or sold from one licensed aviation fuel dealer to  
7 another licensed aviation fuel dealer who will deliver the aviation  
8 fuel exclusively into the fuel supply tanks of aircraft or aircraft  
9 servicing equipment;

10 (7) exported to a foreign country if the bill of lading  
11 indicates the foreign destination and the fuel is actually exported  
12 to the foreign country;

13 (8) sold to a volunteer fire department in this state  
14 for the department's exclusive use; or

15 (9) sold to a nonprofit entity that is organized for  
16 the sole purpose of and engages exclusively in providing emergency  
17 medical services and that uses the gasoline exclusively to provide  
18 emergency medical services, including rescue and ambulance  
19 services.

20 (d) Subsection (a)(4) [~~(a)(4)(A)~~] applies only if the  
21 destination state recognizes, by agreement with this state or by  
22 statute or rule, a supplier in this state as a valid taxpayer for  
23 the motor fuel being exported to that state from this state. The  
24 comptroller shall publish a list that specifies for each state,  
25 other than this state, whether that state does or does not qualify  
26 under this subsection.

27 (f) The exemption provided by Subsection (a)(4) [~~(a)(4)(A)~~]

1 does not apply to a sale by a distributor.

2 SECTION 4. Section [162.115\(d\)](#), Tax Code, is amended to read  
3 as follows:

4 (d) An exporter shall keep:

5 (1) a record showing the number of gallons of:

6 (A) all gasoline inventories on hand at the first  
7 of each month;

8 (B) all gasoline compounded or blended;

9 (C) all gasoline purchased or received, showing  
10 the name of the seller and the date of each purchase or receipt;

11 (D) all gasoline sold, distributed, or used,  
12 showing the name of the purchaser and the date of the sale or use;  
13 and

14 (E) all gasoline lost by fire, theft, or  
15 accident;

16 (2) an itemized statement showing by load the number  
17 of gallons of all gasoline:

18 (A) received during the preceding calendar month  
19 for export and the location of the loading; and

20 (B) exported from this state by destination state  
21 or country;

22 (3) proof of payment of tax to the destination state in  
23 a form acceptable to the comptroller; and

24 (4) if an exemption under Section [162.104\(a\)\(4\)](#)  
25 [~~[162.104\(a\)\(4\)\(B\)](#)~~] is claimed, proof of payment of tax to the  
26 destination state or proof that the transaction was exempt in the  
27 destination state, in a form acceptable to the comptroller.



1 SECTION 5. Subchapter B, Chapter 162, Tax Code, is amended  
2 by adding Section 162.1155 to read as follows:

3 Sec. 162.1155. DUTY TO REPORT SUBSEQUENT SALES OF TAX-FREE  
4 GASOLINE PURCHASED FOR EXPORT. (a) A person who purchases or  
5 removes gasoline tax-free under Section 162.104(a)(4) or (7) and  
6 before export sells the gasoline in this state tax-free to a person  
7 who holds a license under Section 162.105(1), (2), (3), (4), or (6)  
8 shall report that transaction to the comptroller as required by  
9 this section. If the gasoline is subsequently sold one or more  
10 times in this state before export and tax-free to a person who holds  
11 a license under Section 162.105(1), (2), (3), (4), or (6), each  
12 seller shall report the transaction to the comptroller as required  
13 by this section.

14 (b) Each person who sells tax-free gasoline in this state in  
15 a transaction described by Subsection (a) must provide to the  
16 comptroller:

- 17 (1) the bill of lading number issued at the terminal;  
18 (2) the terminal control number;  
19 (3) the date the gasoline was removed from the  
20 terminal;  
21 (4) the number of gallons invoiced; and  
22 (5) any other information required by the comptroller.

23 (c) The sales invoice for each transaction described by  
24 Subsection (a) must include:

- 25 (1) the name of the seller and purchaser; and  
26 (2) the original bill of lading number.

27 (d) A person required to report a transaction under

1 Subsection (a) shall report the transaction on a form prescribed by  
2 the comptroller and with the return required by Section 162.114.

3 SECTION 6. Section 162.201, Tax Code, is amended by adding  
4 Subsections (e-1) and (e-2) to read as follows:

5 (e-1) A tax is imposed on diesel fuel that is otherwise  
6 exempt from taxation under Section 162.204(a)(4) or (7) if the  
7 diesel fuel is sold in this state to a person who does not hold a  
8 license under Section 162.205(a)(1), (2), (3), (4), or (6). The  
9 person that sold the diesel fuel is liable for and shall collect the  
10 tax.

11 (e-2) A tax is imposed on diesel fuel that is otherwise  
12 exempt from taxation under Section 162.204(a)(4) or (7) if before  
13 export the diesel fuel is sold in this state to a person who holds a  
14 license under Section 162.205(a)(1), (2), (3), (4), or (6) and the  
15 diesel fuel is delivered to a destination in this state. The person  
16 that redirected the delivery of the diesel fuel to a destination in  
17 this state is liable for and shall pay the tax.

18 SECTION 7. Sections 162.204(a), (d), and (f), Tax Code, are  
19 amended to read as follows:

20 (a) The tax imposed by this subchapter does not apply to:

21 (1) diesel fuel sold to the United States for its  
22 exclusive use, provided that the exemption does not apply to diesel  
23 fuel sold or delivered to a person operating under a contract with  
24 the United States;

25 (2) diesel fuel sold to a public school district in  
26 this state for the district's exclusive use;

27 (3) diesel fuel sold to a commercial transportation

1 company or a metropolitan rapid transit authority operating under  
2 Chapter 451, Transportation Code, that provides public school  
3 transportation services to a school district under Section 34.008,  
4 Education Code, and that uses the diesel fuel only to provide those  
5 services;

6 (4) diesel fuel exported by either a licensed supplier  
7 or a licensed exporter from this state to any other state, provided  
8 that~~+~~

9 ~~[(A) for diesel fuel in a situation described by~~  
10 ~~Subsection (d),]~~ the bill of lading indicates the destination state  
11 and the supplier collects the destination state tax~~+, or~~

12 ~~[(B) for diesel fuel in a situation described by~~  
13 ~~Subsection (e), the bill of lading indicates the destination state,~~  
14 ~~the diesel fuel is subsequently exported, and the exporter is~~  
15 ~~licensed in the destination state to pay that state's tax and has an~~  
16 ~~exporter's license issued under this subchapter];~~

17 (5) diesel fuel moved by truck or railcar between  
18 licensed suppliers or licensed permissive suppliers and in which  
19 the diesel fuel removed from the first terminal comes to rest in the  
20 second terminal, provided that the removal from the second terminal  
21 rack is subject to the tax imposed by this subchapter;

22 (6) diesel fuel delivered or sold into a storage  
23 facility of a licensed aviation fuel dealer from which the diesel  
24 fuel will be delivered solely into the fuel supply tanks of aircraft  
25 or aircraft servicing equipment, or sold from one licensed aviation  
26 fuel dealer to another licensed aviation fuel dealer who will  
27 deliver the diesel fuel exclusively into the fuel supply tanks of

1 aircraft or aircraft servicing equipment;

2 (7) diesel fuel exported to a foreign country if the  
3 bill of lading indicates the foreign destination and the fuel is  
4 actually exported to the foreign country;

5 (8) dyed diesel fuel sold or delivered by a supplier to  
6 another supplier and dyed diesel fuel sold or delivered by a  
7 supplier or distributor into the bulk storage facility of a dyed  
8 diesel fuel bonded user or to a purchaser who provides a signed  
9 statement as provided by Section [162.206](#);

10 (9) the volume of water, fuel ethanol, renewable  
11 diesel, biodiesel, or mixtures thereof that are blended together  
12 with taxable diesel fuel when the finished product sold or used is  
13 clearly identified on the retail pump, storage tank, and sales  
14 invoice as a combination of diesel fuel and water, fuel ethanol,  
15 renewable diesel, biodiesel, or mixtures thereof;

16 (10) dyed diesel fuel sold by a supplier or permissive  
17 supplier to a distributor, or by a distributor to another  
18 distributor;

19 (11) dyed diesel fuel delivered by a license holder  
20 into the fuel supply tanks of railway engines, motorboats, or  
21 refrigeration units or other stationary equipment powered by a  
22 separate motor from a separate fuel supply tank;

23 (12) dyed kerosene when delivered by a supplier,  
24 distributor, or importer into a storage facility at a retail  
25 business from which all deliveries are exclusively for heating,  
26 cooking, lighting, or similar nonhighway use;

27 (13) diesel fuel used by a person, other than a

1 political subdivision, who owns, controls, operates, or manages a  
2 commercial motor vehicle as defined by Section 548.001,  
3 Transportation Code, if the fuel:

4 (A) is delivered exclusively into the fuel supply  
5 tank of the commercial motor vehicle; and

6 (B) is used exclusively to transport passengers  
7 for compensation or hire between points in this state on a fixed  
8 route or schedule;

9 (14) diesel fuel sold to a volunteer fire department  
10 in this state for the department's exclusive use; or

11 (15) diesel fuel sold to a nonprofit entity that is  
12 organized for the sole purpose of and engages exclusively in  
13 providing emergency medical services and that uses the diesel fuel  
14 exclusively to provide emergency medical services, including  
15 rescue and ambulance services.

16 (d) Subsection (a)(4) [~~(a)(4)(A)~~] applies only if the  
17 destination state recognizes, by agreement with this state or by  
18 statute or rule, a supplier in this state as a valid taxpayer for  
19 the motor fuel being exported to that state from this state. The  
20 comptroller shall publish a list that specifies for each state,  
21 other than this state, whether that state does or does not qualify  
22 under this subsection.

23 (f) The exemption provided by Subsection (a)(4) [~~(a)(4)(A)~~]  
24 does not apply to a sale by a distributor.

25 SECTION 8. Section 162.216(d), Tax Code, is amended to read  
26 as follows:

27 (d) An exporter shall keep:

1 (1) a record showing the number of gallons of:

2 (A) all diesel fuel inventories on hand at the  
3 first of each month;

4 (B) all diesel fuel compounded or blended;

5 (C) all diesel fuel purchased or received,  
6 showing the name of the seller and the date of each purchase or  
7 receipt;

8 (D) all diesel fuel sold, distributed, or used,  
9 showing the name of the purchaser and the date of the sale or use;  
10 and

11 (E) all diesel fuel lost by fire, theft, or  
12 accident;

13 (2) an itemized statement showing by load the number  
14 of gallons of all diesel fuel:

15 (A) received during the preceding calendar month  
16 for export and the location of the loading; and

17 (B) exported from this state, by destination  
18 state or country;

19 (3) proof of payment of tax to the destination state in  
20 a form acceptable to the comptroller; and

21 (4) if an exemption under Section 162.204(a)(4)  
22 [~~162.204(a)(4)(B)~~] is claimed, proof of payment of tax to the  
23 destination state or proof that the transaction was exempt in the  
24 destination state, in a form acceptable to the comptroller.

25 SECTION 9. Subchapter C, Chapter 162, Tax Code, is amended  
26 by adding Section 162.2165 to read as follows:

27 Sec. 162.2165. DUTY TO REPORT SUBSEQUENT SALES OF TAX-FREE

1 DIESEL FUEL PURCHASED FOR EXPORT. (a) A person who purchases or  
2 removes diesel fuel tax-free under Section 162.204(a)(4) or (7) and  
3 before export sells the diesel fuel in this state tax-free to a  
4 person who holds a license under Section 162.205(a)(1), (2), (3),  
5 (4), or (6) shall report that transaction to the comptroller as  
6 required by this section. If the diesel fuel is subsequently sold  
7 one or more times in this state before export and tax-free to a  
8 person who holds a license under Section 162.205(a)(1), (2), (3),  
9 (4), or (6), each seller shall report the transaction to the  
10 comptroller as required by this section.

11 (b) Each person who sells tax-free diesel fuel in this state  
12 in a transaction described by Subsection (a) must provide to the  
13 comptroller:

- 14 (1) the bill of lading number issued at the terminal;  
15 (2) the terminal control number;  
16 (3) the date the diesel fuel was removed from the  
17 terminal;  
18 (4) the number of gallons invoiced; and  
19 (5) any other information required by the comptroller.

20 (c) The sales invoice for each transaction described by  
21 Subsection (a) must include:

- 22 (1) the name of the seller and purchaser; and  
23 (2) the original bill of lading number.

24 (d) A person required to report a transaction under  
25 Subsection (a) shall report the transaction on a form prescribed by  
26 the comptroller and with the return required by Section 162.215.

27 SECTION 10. Section 162.401, Tax Code, is amended by adding

1 Subsections (e) and (f) to read as follows:

2 (e) In addition to any other penalty authorized by this  
3 section, a person who fails to report a subsequent sale in this  
4 state of tax-free motor fuel purchased for export as required by  
5 Section 162.1155 or 162.2165 shall pay for each sale that is not  
6 reported a penalty of \$200. The penalty provided by this subsection  
7 is not assessed if the taxpayer files an amended report that  
8 includes the sale not later than the 180th day after the due date of  
9 the original report of the sale.

10 (f) In addition to any other penalty authorized by this  
11 section, a person who fails to pay the tax imposed by Section  
12 162.101(e-2) or 162.201(e-2) when due shall pay a penalty equal to  
13 the greater of \$2,000 or five times the amount of the tax due on the  
14 motor fuel.

15 SECTION 11. Section 26.3574(a), Water Code, is amended by  
16 amending Subdivision (1) and adding Subdivision (2-a) to read as  
17 follows:

18 (1) "Bulk facility" means a facility in this state,  
19 including pipeline terminals, refinery terminals, rail and barge  
20 terminals, and associated underground and aboveground tanks,  
21 connected or separate, from which petroleum products are withdrawn  
22 from bulk and delivered into a cargo tank or a barge used to  
23 transport those products. This term does not include petroleum  
24 products consumed at an electric generating facility.

25 (2-a) "Supplier" has the meaning assigned by Section  
26 162.001, Tax Code.

27 SECTION 12. Sections 26.3574(b), (d), (e), (f), (g), (i),



1 and (j), Water Code, are amended to read as follows:

2 (b) A fee is imposed on the delivery of a petroleum product  
3 on withdrawal from bulk of that product as provided by this  
4 subsection. Each supplier [~~operator of a bulk facility~~] on  
5 withdrawal from bulk of a petroleum product shall collect from the  
6 person who orders the withdrawal a fee in an amount determined as  
7 follows:

8 (1) not more than \$3.75 for each delivery into a cargo  
9 tank having a capacity of less than 2,500 gallons;

10 (2) not more than \$7.50 for each delivery into a cargo  
11 tank having a capacity of 2,500 gallons or more but less than 5,000  
12 gallons;

13 (3) not more than \$11.75 for each delivery into a cargo  
14 tank having a capacity of 5,000 gallons or more but less than 8,000  
15 gallons;

16 (4) not more than \$15.00 for each delivery into a cargo  
17 tank having a capacity of 8,000 gallons or more but less than 10,000  
18 gallons; and

19 (5) not more than \$7.50 for each increment of 5,000  
20 gallons or any part thereof delivered into a cargo tank having a  
21 capacity of 10,000 gallons or more.

22 (d) A person who imports a petroleum product in a cargo tank  
23 or a barge destined for delivery into an underground or aboveground  
24 storage tank, regardless of whether or not the tank is exempt from  
25 regulation under Section 26.344 [~~of this code~~], other than a  
26 storage tank connected to or part of a bulk facility in this state,  
27 shall pay to the comptroller a fee on the number of gallons

1 imported, computed as provided by Subsections (b) and (c) [~~of this~~  
2 ~~section~~]. If a supplier [~~bulk facility operator~~] imports a  
3 petroleum product in a cargo tank or a barge, the supplier [~~bulk~~  
4 ~~facility operator~~] is not required to pay the fee on that imported  
5 petroleum product if the petroleum product is delivered to a bulk  
6 facility from which the petroleum product will be withdrawn from  
7 bulk.

8 (e) A supplier [~~bulk facility operator~~] who receives  
9 petroleum products on which the fee has been paid may take credit  
10 for the fee paid on monthly reports.

11 (f) Subsection (b) [~~of this section~~] does not apply to a  
12 delivery of a petroleum product destined for export from this state  
13 if the petroleum product is in continuous movement to a destination  
14 outside this state. For purposes of this subsection, a petroleum  
15 product ceases to be in continuous movement to a destination  
16 outside this state if the product is delivered to a destination in  
17 this state. The person that directs the delivery of the product to  
18 a destination in this state shall pay the fee imposed by this  
19 section on that product.

20 (g) Each supplier [~~operator of a bulk facility~~] and each  
21 person covered by Subsection (d) [~~of this section~~] shall file an  
22 application with the comptroller for a permit to deliver a  
23 petroleum product into a cargo tank destined for delivery to an  
24 underground or aboveground storage tank, regardless of whether or  
25 not the tank is exempt from regulation under Section 26.344 [~~of this~~  
26 ~~code~~]. A permit issued by the comptroller under this subsection is  
27 valid on and after the date of its issuance and until the permit is

1 surrendered by the holder or canceled by the comptroller. An  
2 applicant for a permit issued under this subsection must use a form  
3 adopted or approved by the comptroller that contains:

4 (1) the name under which the applicant transacts or  
5 intends to transact business;

6 (2) the principal office, residence, or place of  
7 business in this state of the applicant;

8 (3) if the applicant is not an individual, the names of  
9 the principal officers of an applicant corporation, or the name of  
10 the member of an applicant partnership, and the office, street, or  
11 post office address of each; and

12 (4) any other information required by the comptroller.

13 (i) Each supplier [~~operator of a bulk facility~~] and each  
14 person covered by Subsection (d) [~~of this section~~] shall:

15 (1) list, as a separate line item on an invoice or  
16 cargo manifest required under this section, the amount of the  
17 delivery fee due under this section; and

18 (2) on or before the 25th day of the month following  
19 the end of each calendar month, file a report with the comptroller  
20 and remit the amount of fees required to be collected or paid during  
21 the preceding month.

22 (j) Each supplier [~~operator of a bulk facility~~] or the  
23 supplier's [~~his~~] representative and each person covered by  
24 Subsection (d) [~~of this section~~] shall prepare the report required  
25 under Subsection (i) [~~of this section~~] on a form provided or  
26 approved by the comptroller.

27 SECTION 13. The following provisions of the Tax Code are

1 repealed:

2 (1) Sections 162.104(c) and (e); and

3 (2) Sections 162.204(c) and (e).

4 SECTION 14. The amendments made by this Act to Sections  
5 162.101 and 162.201, Tax Code, are a clarification of existing law  
6 and do not imply that existing law may be construed as inconsistent  
7 with the law as amended by this Act.

8 SECTION 15. The changes in law made by this Act do not  
9 affect tax liability accruing before the effective date of this  
10 Act. That liability continues in effect as if this Act had not been  
11 enacted, and the former law is continued in effect for that purpose.

12 SECTION 16. This Act takes effect January 1, 2018.

S.B. No. 1557

\_\_\_\_\_  
President of the Senate

\_\_\_\_\_  
Speaker of the House

I hereby certify that S.B. No. 1557 passed the Senate on April 3, 2017, by the following vote: Yeas 31, Nays 0.

\_\_\_\_\_  
Secretary of the Senate

I hereby certify that S.B. No. 1557 passed the House on May 24, 2017, by the following vote: Yeas 141, Nays 5, one present not voting.

\_\_\_\_\_  
Chief Clerk of the House

Approved:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Governor

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes amendments to §§334.2, 334.4, 334.6, 334.7, 334.10, 334.19, 334.42, 334.45 - 334.52, 334.54, 334.55, 334.72, 334.74, 334.123 - 334.125, 334.127, 334.208, 334.407, 334.424, 334.491, 334.496, 334.499, 334.602, 334.603, and 334.605.

### **Background and Summary of the Factual Basis for the Proposed Rules**

In 1988, the United States Environmental Protection Agency (EPA) promulgated underground storage tank (UST) regulations (40 Code of Federal Regulations (CFR) Part 280), which set minimum standards for new tanks and required owners and operators of existing tanks to upgrade, replace, or remove those not in compliance. The same year, EPA also promulgated regulation for state program approval (SPA) (40 CFR Part 281), which allows states to administer and enforce the regulation of USTs.

Chapter 334 originally became effective on September 29, 1989. The purpose of the original rulemaking was to allow Texas to operate an independent UST program in lieu of federal regulation through the SPA under 40 CFR Part 281, Approval of State Underground Storage Tank Programs. To obtain program approval, certain federal requirements for storage tanks in 40 CFR Part 280 were incorporated into Texas's UST program.

TCEQ and its predecessor agencies amended Chapter 334 on November 8, 1995; December 27, 1996; February 14, 1997; October 22, 1997 (Petroleum Storage Tank

(PST) Reimbursement Program); December 10, 1998 (Emergency and Temporary Orders); September 23, 1999 (Texas Risk Reduction Program); March 21, 2000 (PST Program (House Bills (HBs) 2109, 2815, and 2816); July 12, 2001 (PST Cleanup); December 17, 2001 (HB 3111 and Quadrennial Review of Chapter 290); April 2, 2002 (Remediation of Underground and Aboveground Storage Tanks (AST)), November 18, 2004 (Petroleum Storage Tank Rules); November 9, 2006 (Senate Bill (SB) 486 and HB 1987, PST Rule Revisions), October 30, 2008 (Regulation, Remediation and Financial Assurance of ASTs and USTs); March 19, 2009 (Remediation of Leaking Petroleum Storage Tank sites); March 17, 2011 (PST Operator Training); June 30, 2011; and April 19, 2012 (HB 2694).

On July 15, 2015, EPA updated its UST regulations under 40 CFR Part 280, with an effective date of October 13, 2015. EPA's stated purpose for the updated regulations was to revise the 1988 UST regulation to more closely resemble key provisions of the Energy Policy Act of 2005 (EPAct). The revisions strengthened the 1988 UST standards by increasing the emphasis of properly maintained and operated UST equipment, with the purpose of limiting environmental and human health risks associated with UST systems. In addition, EPA also updated SPA requirements in 40 CFR Part 281 to incorporate the changes to the UST technical regulations in 40 CFR Part 280. These amended regulations were the first major revisions to the federal UST rules since becoming effective in 1988.

The scope of this current rulemaking is to amend Chapter 334 to incorporate federal rule revisions required under EPA's SPA rules for USTs. These revisions include: additional secondary containment requirements for new and replaced tanks and piping; revision of operator training requirements; and additional periodic operation and maintenance requirements for UST systems. In addition, the revised federal regulations added requirements for UST systems deferred in the original 1988 federal UST regulation; added new release prevention and detection technologies; and updated and expanded codes of practice. The revised federal regulations also made editorial corrections and technical amendments.

Current Chapter 334 rules are more stringent than the original 1988 federal UST regulation. For example, Texas has already implemented additional requirements for secondary containment and operator training that meet the requirements of the revised federal regulations. In addition, Chapter 334 meets federal requirements for emergency generator tank systems and containment sumps that require regular inspection, documentation of initial groundwater and vapor monitoring site assessment, notification of ownership change, and Statistical Inventory Reconciliation (SIR) as an approved method of release detection. While these requirements were included in the 2015 amendments to 40 CFR Part 280, Texas has previously adopted these requirements, and the proposed rulemaking incorporates into Chapter 334 those federal requirements that have not yet been adopted.



To meet the new requirements of 40 CFR Parts 280 and 281, changes are proposed to Chapter 334 including 30-day walkthrough inspections of sump and spill buckets, three-year containment sump and spill prevention equipment testing, annual inspections of overfill prevention equipment, and annual testing of release detection equipment.

Consistent with the stated goals of the 2015 federal amendments, the purpose of the amendments to Chapter 334 is to further diminish the environmental and human health risks associated with USTs with a focus on the proper operation and maintenance of the safety mechanisms used in UST systems. Moreover, these amendments account for technological advances the UST industry has undergone since the 1988 UST regulations were promulgated, including technology which detects releases from UST systems deferred in the 1988 UST regulations. Altogether, the combination of modern UST technology, mandated periodic testing of UST safety equipment, and focus on the operation and maintenance of UST facilities will meet the stated purpose of diminishing environmental and human health risks associated with USTs and ensure consistency with the federal requirements.

In addition, changes are proposed to §334.19, Fee on Delivery of Petroleum Product, to conform to amendments to the Texas Water Code (TWC). HB 7, 84th Texas Legislature (2015), amended TWC, §26.3574(b) and (b-1), to clarify the calculation method of the petroleum products delivery fee. Additional minor rule revisions related to the fee on

the delivery of certain petroleum products are proposed to conform to the amendment to TWC, §26.3574, by SB 1557, 85th Texas Legislature (2017). The revisions include changing the term "operator of a bulk facility" to "supplier" such that the supplier would now collect the fees on delivery of a petroleum product.

Finally, this rulemaking proposes minor administrative changes. These administrative changes reflect the agency's 2002 name change from the Texas Natural Resource Conservation Commission (TNRCC) to the Texas Commission on Environmental Control (TCEQ) and to correct grammatical and spelling errors.

## **Section by Section Discussion**

### *Administrative Amendments*

The commission proposes administrative amendments to various sections of Chapter 334. The proposed rulemaking includes various stylistic, non-substantive amendments to update rule language to current *Texas Register* style and format requirements.

Administrative amendments are not substantive and are being proposed to ensure the consistency, clarity, and accuracy of information within Chapter 334. Sections with only administrative amendments being proposed are §§334.208, 334.407, 334.424, 334.496, 334.499, 334.602, and 334.603. Additional sections contain administrative amendments, but generally these will not be specifically addressed in the Section by Section Discussion. The proposed administrative amendments include but are not limited to: correcting minor grammatical, spelling, and typographical errors;

standardizing the use of acronyms; updating section references; and updating the commission's name.

*§334.2, Definitions*

Paragraphs were renumbered to reflect changes to the definitions within this section. Other non-substantive and grammatical updates were made to comply with *Texas Register* requirements.

The commission proposes amending and moving the definition "ACT" from existing §334.2(5) to proposed §334.2(12), and adding "Association for Composite Tanks" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes adding the definition "Airport hydrant system" to §334.2(6). This term is used to reflect the language used in the federal regulations in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and moving the definition "ANSI" from §334.2(9) to §334.2(8), and adding "American National Standards Institute" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes amending and moving the definition "API" from existing §334.2(10) to proposed §334.2(9), and adding "American Petroleum Institute" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes amending and renumbering the definition "ASTM" from §334.2(12) to §334.2(13), to accurately reflect the name change of the organization to ASTM International.

The commission proposes amending and renumbering the definition "Beneath the surface of ground," from §334.2(15) to §334.2(16) by removing the phrase, "so that visual inspection is precluded." The commission proposes amending and renumbering "Underground storage tank" from §334.2(115) to §334.2(120) by adding "or otherwise covered with material so that visual inspection is precluded." This proposed change is made to clarify that the visual inspection requirement is for the tank and the preclusion is not limited to soil, but includes, for example, ground cover, gravel, concrete or other material.

The commission proposes amending and moving the definition "CERCLA" from §334.2(17) to §334.2(23), and adding "Comprehensive Environmental Response, Compensation, and Liability Act" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes adding the definition "Containment sump" as §334.2(25). This term reflects the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition "Corporate fiduciary" from §334.2(24) to §334.2(26), by updating the names of state and federal agencies that have changed their names since Chapter 334 was first promulgated. The changes are proposed to show current chartering entities and facilitate accurate reference.

The commission proposes adding the definition "Dispenser" to §334.2(33). This term reflects the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition "Field-constructed tank" from §334.2(39) to §334.2(42), to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations

promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition, "Motor fuel" from §334.2(59) to §334.2(62) to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition of "NACE International" from §334.2(60) to §334.2(63) to accurately reflect the updated term and improve clarity.

The commission proposes amending and moving the definition "NFPA" from §334.2(62) to §334.2(64) and adding "National Fire Protection Association" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes adding the definition "New dispenser" as §334.2(65). The previous definition was in §334.45(d)(1)(E)(v) and is being amended and moved to §334.2(66). The purpose of moving the definition is to maintain consistency with other definitions in Chapter 334 and define the term in the §334.2, Definitions, as opposed

to §334.45, Technical Standards for New Underground Storage Tank Systems. In addition, the commission proposes to amend the definition of "New dispenser" by removing §334.45(d)(1)(E)(v)(I), "any dispenser which is installed where none previously existed." The purpose of the proposed amendment is clarification. This phrase is redundant with §334(d)(1)(E)(v)(II), such that it is not be possible to install a dispenser where none previously existed without also installing the transitional piping components. The proposed amendment of previous §334(d)(1)(E)(v)(II) moved to §334.2(65) serves to simplify the requirements without being less stringent. In addition, the proposed amended definition of "New dispenser" now reflects the amended language used in 40 CFR Part 280.

The commission proposes amending and renumbering the definition of "On the premises where stored" from §334.2(68) to §334.2(72), to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and moving the definition "Owner" from §334.2(73) to §334.2(77), and correcting the reference from TWC, §25.3516 to TWC, §26.3516 in order to facilitate finding the relevant statutory provision.

The commission proposes amending and moving the definition "PEI" from §334.2(74) to §334.2(80) and adding "Petroleum Equipment Institute," to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes amending and renumbering the definition "Person" from §334.2(76) to §334.2(79), and replacing the definition with a reference to 30 TAC §3.2 to ensure consistency with other regulatory use of the term.

The commission proposes amending and renumbering the definition "Petroleum substance" from §334.2(81) to §334.2(85) and by changing the letter "O" to a zero so that "gas-turbine fuel oil" accurately reflects "Grade-0." The proposed change corrects a typographical error.

The commission proposes adding the definition "Replaced" to §334.2(99) to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition "Septic tank" from §334.2(99) to §334.2(104) and replacing the definition with a reference 30 TAC §285.2 to ensure consistency with other regulatory use of the term.



The commission proposes amending and renumbering the definition "STI" from §334.2(102) to §334.2(107) and adding "Steel Tank Institute" to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes amending renumbering, moving, and combining the definitions "Stormwater collection system" from §334.2(103) and "Wastewater collection system" from §334.2(122), to create a new definition for "Stormwater or wastewater collection system" in §334.2(108). The purpose of this amendment is to simplify existing language by combining two definitions that are similar in substance and purpose.

The commission proposes amending and moving the definition "UL" from §334.2(112) to §334.2(121) and adding "Underwriters Laboratories, Inc. (UL)," to accurately reflect the acronym, the alphabetical order, and improve clarity.

The commission proposes adding the definition "Under-dispenser containment (UDC)" to §334.2(117). This term is used to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes amending and renumbering the definition "Underground storage tank" from §334.2(114) to §334.2(119), by adding the phrase "or otherwise covered with material so that visual inspection is precluded" in order to be consistent with the definition "Beneath the surface of ground" in §334.2(16). This proposed change is made to clarify that the visual inspection requirement is for the tank and the preclusion is not limited to soil, but includes, for example, ground cover, gravel, concrete or other material.

The commission proposes amending and renumbering the definition "Used oil" from §334.2(118) to §334.2(124). This term is used to reflect the language used in 40 CFR Parts 280 and 281. Using terminology consistent with federal regulations promotes clarity for the regulated community by streamlining compliance strategies and allowing the regulated community to comply with both state and federal law simultaneously.

The commission proposes removing the definitions "UST" in §334.2(119) and "UST system" in §334.2(120) since these terms are included in the definitions for "Underground storage tank" in §334.2(119) and "Underground storage tank system" in §334.2(120). Removing these as definitions is proposed to eliminate duplicative entries.

*§334.4, Exclusions for Underground Storage Tanks (USTs) and UST Systems*

The commission proposes amending §334.4(b) by adding language to exclude certain listed USTs from certain operator training, on-site supervisor licensing, and contractor registration requirements. The purpose of this amendment is to exclude certain USTs from these requirements because the commission has determined that operator training is not necessary for the operation of the listed USTs. Operator training covers technical standards geared toward the storage of motor fuels which do not apply to the listed USTs. Therefore, owners and operators of wastewater treatment tanks do not need to be trained on standards that do not apply. Operator training requirements are also not required by federal UST rules for the listed USTs. The listed USTs are also excluded from on-site supervisor licensing and contractor registration requirements since the technical standards supervisors and contractors would administer do not apply.

*§334.6, Construction Notification for Underground Storage Tanks (USTs) and UST Systems*

The commission proposes amending §334.6(a)(3) by adding "zones or contributing zone within a transition zone" to clarify the applicability of requirements for agency approval regarding certain regulated construction activities occurring over the Edwards Aquifer. This additional language serves to specify that the requirements in 30 TAC §213.22 apply to the overlapping area of the contributing zone within the transition zone. The commission has also changed the preposition preceding "Edwards Aquifer" from "in" to "on" to mirror the language used in §213.22.

The commission proposes adding §334.6(b)(1)(A)(ix) in which switching to a regulated substance containing greater than 10% ethanol or greater than 20% biodiesel is now considered a major construction activity and subject to 30-day notice requirements. The purpose of the proposed amendment is to address fuel-tank compatibility concerns and ensure owners and operators who switch to biofuel have appropriate technology in place to safely contain these types of regulated substances.

The commission proposes amending §334.6(b)(2)(C) and (3) to exempt proposed §334.6(b)(1)(A)(ix) from requirements relating to reporting initiation or rescheduling of switching to biofuel. These amendments are being proposed because a compatibility determination for the UST system can be evaluated during onsite periodic inspections; therefore, notifying the regional office is unnecessary when regulated substances are switched to biofuel.

*§334.7, Registration for Underground Storage Tanks (USTs) and UST Systems*

The commission proposes amending §334.7(a)(1)(C) by replacing the language "effective date of this subchapter" with "September 29, 1989," the original effective date of the subchapter. The purpose of the amendment is to more clearly identify which USTs the exception applies to.

The commission proposes amending §334.7(b) and (c) by replacing the language "effective date of this subsection" with "November 23, 2000," the effective date of the subsection. The purpose of this amendment is to provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

The commission proposes adding §334.7(d)(1)(C)(i) and (ii) to specify that switching to a regulated substance greater than 10% ethanol or 20% biodiesel is considered a change or additional information about a UST system which requires written notice be sent to the agency. The purpose of these additions is to account for compatibility concerns related to the storage of biofuels and to ensure the commission is provided with information regarding significant changes.

The commission proposes amending §334.7(e)(6) by replacing the language "effective date of this paragraph" with "November 23, 2000," the effective date of the paragraph. The purpose of this amendment is to provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

#### *§334.10, Reporting and Recordkeeping*

The commission proposes amending §334.10(a)(2) by removing "recharge and transition zones" and adding language to specify reporting requirements which apply to the regulated zones of the Edwards Aquifer. The commission determined that the previous language did not adequately capture all the regulated zones of the Edwards

Aquifer, specifically the overlapping area of the contributing zone within the transition zone. The purpose of amending this paragraph is to clarify to which zones of the Edwards Aquifer existing requirements in §334.6 apply.

The commission proposes amending §334.10(b)(2)(B)(iv) by adding language to specify that operation and maintenance records should now include reports from periodic testing and walkthrough inspection. The purpose of this amendment is to account for the new walkthrough inspection and periodic testing requirements proposed in §334.42 and §334.48 and to ensure the agency is provided with the appropriate records to make a determination of compliance.

*§334.19, Fee on Delivery of Petroleum Product*

An erroneous citation error in §334.19(a) is corrected in the rule as a reference to TWC, specifically TWC, §26.3573 is amended to the appropriate citation TWC, §26.3574. Additionally, in §334.19(a) the phrase "operator of a bulk facility" is amended to "supplier" such that the supplier would now collect the fees on delivery of a petroleum product in accordance with changes made to TWC, §26.3574 by SB 1557, 85th Texas Legislature, 2017.

The commission proposes amending §334.19(a)(1) - (5) so that the maximum fee amounts match those currently in TWC, §26.3574 (i.e., "not more than \$3.75 for each delivery" etc.). Please note, however, that this rule proposal does not raise the fee

amounts that are currently in effect. TCEQ continues to set the actual fee by *Texas Register* publication, according to the process described in current §334.19(b): "TCEQ may adjust the fee rates in subsection (a) of this section through an appropriate notification process, such as but not limited to *Texas Register* publication with public comment, based on the agency's cost of administering this chapter, but not to exceed the maximum rates set by Texas Water Code, §26.3574." The current fee rates were published in 2015, by TCEQ, in the *Texas Register* on August 28, 2015 (40 TexReg 5513). That publication stated that "effective September 1, 2015, the fees are \$1.70 for each delivery into a cargo tank or a barge having a capacity of less than 2,500 gallons; \$3.45 for 2,500 to 5,000 gallons; \$5.45 for 5,000 to 8,000 gallons; \$6.95 for 8,000 to 10,000 gallons; and \$3.45 for each increment of 5,000 gallons delivered into a cargo tank or barge having a capacity of more than 10,000 gallons."

Additionally, the commission proposes amending §334.19(b) by adding the phrase, "in accordance with TWC, §26.3574(b-1)," to further clarify the methodology by which the fee is calculated. The proposed amendment to §334.19(a)(1) - (5) also removes the June 30, 2012, date from the section, as that phase-in date is no longer relevant.

#### *§334.42, General Standards*

The commission proposes amending §334.42(a) to require that UST systems are maintained, in addition to being designed, installed, and operated, in a manner that will prevent releases. The purpose of this amendment is to require maintenance to

help prevent releases, and impacts to human health and the environment.

The commission proposes amending §334.42(b) to specify which components of UST systems are subject to the compatibility requirements. The commission also proposes providing examples of industry standards and practices which can be used to comply with this subsection. The purpose of these amendments is to provide the regulated community with clear, updated, and adequate information which can be used to facilitate compliance with the regulations.

The commission also proposes adding §334.42(b)(1) - (3) which lists the methods owners and operators may use to demonstrate compliance with compatibility requirements. The purpose of this amendment is to specify the various options that owners and operators can use to demonstrate compliance to the agency.

The commission proposes amending §334.42(i) to require only the removal of liquid and debris found in sumps and spill prevention equipment within 96 hours, rather than requiring both the removal and disposal of liquid and debris within 96 hours. Based on the small amount of waste generally found during inspections, the commission determined that it was not necessary to require disposal within the short-time period. The commission has determined that, if handled properly, the material may be safely accumulated onsite prior to disposal and that such accumulation is regulated by waste rules in 30 TAC Chapters 330 and 335 (relating to Municipal Solid



Waste and Industrial Solid Waste and Municipal Hazardous Waste, respectively). By allowing the regulated community to accumulate waste material onsite, overall effort and disposal costs may be reduced due to the ability to accumulate and dispose one larger amount of waste, rather than being required to repeatedly dispose small amounts of waste.

Additionally, the commission is proposing that amended §334.42(i) be effective through December 31, 2020. Thereafter, the proposed requirements listed in §334.48(h) shall become effective. The purpose of providing an effective date is to allow §334.42(i) to continue regulating the sump inspections in the interim period until the new walkthrough inspection requirements in §334.48(h) become effective.

*§334.45, Technical Standards for New Underground Storage Tank Systems*

The commission proposes amending §334.45(a)(1) and (e)(4)(A) and (B) by replacing the language "the effective date of this subchapter" with "September 29, 1989," which was the original effective date of the subchapter. The purpose of this amendment is to provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

The commission proposes amending §334.45(b)(1)(A) - (F) to make minor corrections to the titles of existing industry standards and practices and to add new standards and practices which may be used to comply with the section. The purpose of the

amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes moving §334.45(b)(1)(D)(iv), (E)(iv), and (F)(iv) to §334.45(b)(1)(D)(iii), (E)(iii), and (F)(iii), respectively. These relocations are proposed to improve the logical sequence of the regulations by placing technical requirements (electrical isolation from all other metallic structures), §334.45(b)(1)(D)(iv), (E)(iv), and (F)(iv), above the list of industry standards and practices, §334.45(b)(1)(D)(iii), (E)(iii), and (F)(iii).

The commission proposes amending §334.45(c)(1)(A) - (C) by modifying the accepted industry standards and practices as follows: making minor corrections to the titles of existing standards and practices, removing outdated standards and practices, and adding newly accepted standards and practices which may be used to comply with this section. The purpose of the amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes amending §334.45(d)(1)(A) to remove language referencing §334.44 because the dates within §334.44 have passed and are no longer applicable.

The commission proposes amending §334.45(d)(1)(B) to add the phrase "or contributing zone within the transition zone" to clarify the applicability of the

requirement mandating the use of double-wall tank and piping systems (or approved alternative) for any UST system situated on the regulated zones of the Edwards Aquifer as prescribed in §213.22. The commission has added language to specify that requirements apply to the overlapping area of the contributing zone within the transition zone in accordance with the requirements in §213.22. The commission also proposes amending §334.45(d)(1)(B) to mirror the language in §213.22 in order to promote consistency among rules related to the Edwards Aquifer.

The commission proposes amending §§334.45(d)(1)(E)(iv), (vi), (vii), and (viii)(II) to clarify that dispenser sumps are included within the respective requirements which reference "sumps."

The commission proposes amending §334.45(d)(1)(E)(iv) and (vi) by replacing language referring to UST systems with release detection systems by interstitial monitoring with language referring to interstitial monitoring of piping to improve clarity. The existing language was determined by the commission to be unnecessarily lengthy and potentially unclear. The purpose of the amendment is to improve the brevity and clarity of the regulation for the benefit of the regulated community without making any substantive changes.

The commission proposes amending §334.45(d)(1)(E)(iv) by adding references to dispenser sumps, interstitial monitoring, and §334.42 and §334.48, which include new

requirements relating inspections. The purpose of this amendment is to refer to the change for sumps and manways inspections from at least once every 60 days until December 31, 2020, to at least once every 30 days beginning January 1, 2021. The compliance date is extended to allow owners and operators time to implement compliance strategies. The purpose of the more frequent inspections is to identify and help prevent releases and minimize impacts to human health and the environment.

The commission proposes amending §334.45(d)(1)(E)(v) by adding language to reference the definition of "New dispenser" in §334.2 and to add new compatibility, installation, and inspection requirements for new dispensers and dispenser sumps. The purpose of this amendment is to ensure that new dispensers are contained by dispenser sumps intended to contain spills from leaking or dripping hoses or fittings within the dispenser cabinet.

The commission proposes removing and replacing the definition of new dispenser found in §334.45(d)(1)(E)(v)(I) and (II) with the definition of "New dispenser" in §334.2(65) in order to promote consistency in the placement of definitions within Chapter 334.

The commission proposes amending §334.45(d)(1)(E)(vii) to require only the removal of liquid and debris found in sumps and spill prevention equipment within 96 hours rather than requiring both the removal and disposal of liquid and debris within 96

hours. The commission has determined, if handled properly, the material may be safely accumulated onsite prior to disposal and that such accumulation is regulated by waste rules in Chapters 330 and 335. By allowing the regulated community to accumulate waste material onsite, overall effort and disposal costs may be reduced due to the ability to accumulate and dispose one larger amount of waste, rather than being required to repeatedly dispose small amounts of waste. As long as waste is handled properly, this allows flexibility to the regulated community to reduce disposal costs without an increased risk to human health or the environment.

*§334.46, Installation Standards for New Underground Storage Tank Systems*

The commission proposes amending §334.46(a), (g), (g)(3)(B)(iii) and (iv), and (h)(1) by replacing "the effective date of this subchapter" with September 29, 1989, which was the original effective date of the subchapter. The purpose of this amendment is to replace the reference with the original effective date, which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

The commission proposes amending §334.46(a)(1) by modifying the accepted industry standards and practices as follows: removing outdated standards and practices and adding newly accepted standards and practices which may be used to comply with the section. The purpose of this amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes amending §334.46(h)(1) by removing §334.46(h)(1)(A) because it applied to a period of time that has now passed and by consolidating §334.46(h)(1)(B), requiring UST system installations to be completed by an installer licensed by the agency, into §334.46(h)(1). The purpose of this amendment is to update and simplify the existing rule in order to provide clarity and facilitate compliance.

The commission proposes amending §334.46(h)(1)(A) by removing requirements that are no longer required since they apply to a period that has passed and are accounted for in the amendment to §334.46(h)(1), and amending §334.46(h)(1)(B) by removing requirements that have been consolidated into §334.46(h)(1) and are also accounted for in the amendment.

*§334.47, Technical Standards for Existing Underground Storage Tank Systems*

The commission proposes adding §334.47(a)(1)(C), to include National Fire Protection Association Standards 30 and 30A to the list of accepted standards and practices which may be used to comply with the section. The purpose of the amendment is to reflect the most current, relevant, and accepted industry standards and ensure consistency with federal regulations.

The commission proposes amending §334.47(e)(2)(B) and (C) to replace the language "the effective date of this subchapter" with "September 29, 1989," the effective date of

the subchapter. The purpose of this amendment is to replace the reference with the original effective date, which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

*§334.48, General Operating and Management Requirements*

The commission proposes amending §334.48(c) to replace the language "the effective date of this subchapter" with "September 29, 1989," the effective date of the subchapter. The purpose of this amendment is to replace the reference with the original effective date, which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

The commission also proposes amending §334.48(e) to require annual release detection equipment testing for electronic and mechanical components. Language that was previously in this subsection required that owners and operators conduct periodic monitoring of release detection equipment, but specific equipment and specific timelines were not identified. The commission proposes replacing the previous language with language providing specific details and requirements to ensure specific release detection equipment is inspected at least annually and is functioning as expected to prevent or mitigate releases.

The commission proposes adding §334.48(e)(1) to incorporate a new annual testing requirement for release detection equipment and the requirement's effective date. The

purpose of this amendment is to ensure specific release detection equipment is tested annually to ensure proper functionality.

The commission proposes adding §334.48(e)(1)(A) - (E) to specify the release detection equipment and criteria that is subject to the new annual testing requirement. The purpose of this amendment is to provide additional detail to the regulations in §334.48(e)(1).

The commission proposes adding §334.48(e)(2) to specify the accepted standards and practices which may be used to comply with the section. The purpose of the amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations

The commission proposes relettering §334.48(g) to §334.48(j) to allow for the inclusion of new requirements as amended §334.48(g) - (i). The purpose of this amendment is to account for the rules added in §334.48(g) - (i) while ensuring the structure of the section remains logical and consistent.

The commission proposes amending §334.48(g) to add new requirements regarding periodic testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping and periodic inspection of overfill prevention equipment. These changes are necessary to comply with the amended requirements of



40 CFR Parts 280 and 281. The new requirements will require triennial testing on spill prevention equipment and containment sumps used for interstitial monitoring to ensure they are liquid tight. In addition, the new requirements will require overflow prevention equipment to be inspected for proper function and activation. The purpose of these amendments is to require periodic testing and inspection of UST system equipment to mitigate the likelihood of a release to the environment should liquid enter the containment area or collect in spill buckets should the tanks be overfilled.

The commission proposes adding §334.48(g)(1) to introduce the requirements for UST systems with spill and overflow prevention equipment and containment sumps used for interstitial monitoring or piping.

The commission proposes adding §334.48(g)(1)(A) to introduce the requirements for spill prevention equipment and containment sumps. The purpose of this amendment is to ensure equipment used to contain liquid which may collect around the fill pipe is liquid tight in order to prevent releases to the environment.

The commission proposes adding §334.48(g)(1)(A)(i) and (ii) to specify the methods which can be used to comply with requirements for periodic testing of spill prevention equipment. The regulated community is provided with the option to either install double-walled spill buckets and containment sumps and use periodic monitoring, or conduct triennial testing on single-walled equipment through one of several methods.

Among the options for triennial testing, the commission proposes adding a low liquid level method of testing in §334.48(g)(1)(A)(ii)(I) - (IV), which mirrors an EPA-approved alternative that allows for a reduced amount of water to be used for periodic hydrostatic testing. The purpose of this amendment is to reduce the quantity of contaminated water generated by the testing, to reduce the costs of testing and disposal to the regulated community, and to add additional flexibility in achieving compliance while still ensuring the proper maintenance and operation of UST equipment.

The commission proposes adding §334.48(g)(1)(A)(iii) to allow liquids used for sump testing, as described in §334.48(g)(1)(A)(ii), to be reused to liquid test other sumps at the same facility or at other facilities. The purpose of this amendment is to reduce the quantity of contaminated water generated by the testing and to reduce the costs of testing and disposal to the regulated community while still ensuring the proper maintenance and operation of UST equipment.

The commission proposes adding §334.48(g)(1)(B) to specify inspection requirements for overflow prevention equipment and the frequency at which inspections shall occur. The purpose of this addition is to ensure that overflow prevention equipment is set to function correctly and prevents releases into the environment which may occur due to inadvertent overflowing of the UST.

The commission proposes adding §334.48(g)(1)(C) to incorporate newly accepted standards and practices which may be used to comply with §334.48(g)(1)(A)(ii)(II) and (B). The purpose of the amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes to add §334.48(g)(2) to introduce the implementation dates of the requirements within subsection §334.48(g).

The commission proposes adding §334.48(g)(2)(A) and (B) to specify the implementation dates for the requirements within §334.48(g). Two distinct groups are created with differing implementation dates: UST systems in use on or before September 1, 2018, and UST systems which come into use after September 1, 2018.

The purpose of creating two different groups is to phase in implementation of the regulations for UST systems in use on or before September 1, 2018, which will be given three years to make process changes to achieve compliance with the new regulations. UST systems which come online after September 1, 2018, are expected to comply with the new regulations upon the effective date. September 1, 2018, has been proposed because the adopted rules are expected to be published in the *Texas Register* in May 2018, and the commission has determined that three months is sufficient time to allow the regulated community to become familiar with the requirements prior to the compliance date. In addition, the commission proposes adding §334.48(g)(2)(A)(ii) and (B)(ii) to specify when the initial testing and inspections must be conducted. The

purpose of adding the initial testing and inspection requirements is to clarify the specific date when the first test or inspection shall be required.

The commission proposes adding §334.48(g)(3) to introduce new recordkeeping requirements for activities related to spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment.

The commission proposes adding §334.48(g)(3)(A) and (B) to specify the types of records and the length of time that those records must be kept concerning spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overfill prevention equipment. The purpose is to ensure the commission is provided with adequate information to ensure compliance with requirements.

The commission proposes §334.48(h) to add new requirements for periodic operation and maintenance walkthrough inspections of UST system equipment. These changes are necessary to comply with the requirements of 40 CFR Parts 280 and 281. The commission proposes an implementation date of January 1, 2021, for the new inspection requirements because the rules, if adopted, are expected to be published in the *Texas Register* in May 2018, and almost three years is a reasonable amount of time for the regulated community to prepare for the implementation of walkthrough inspections of UST systems prior to the rules taking effect. The purpose of this amendment is to require routine inspection of UST system equipment to prevent or

mitigate a release to the environment should equipment be damaged, leak, or otherwise malfunction.

The commission proposes adding §334.48(h)(1) which will introduce periodic operation and maintenance walkthrough inspection requirements.

The commission proposes adding §334.48(h)(1)(A) to establish new 30-day periodic operation and maintenance walkthrough inspection requirements. These inspections must be conducted every 30 days and cover certain types of equipment and conditions. The proposed requirements closely reflect the language used in 40 CFR Parts 280 and 281. However, the commission proposes modifying the federal requirements regarding disposal of liquid or debris found in spill prevention equipment. A similar requirement exists in §334.42(i) of the existing regulations. That rule currently requires the removal and disposal of this waste material within 96 hours. However, the commission has proposed transferring that requirement into the new periodic walkthrough inspections section, §334.48(h)(1)(A)(i), which has a compliance due date of January 1, 2021. Additionally, the commission determined that it was not necessary to require disposal within the 96-hour time period because only a small amount of waste is generally found during inspection. The commission has determined that the material can safely be accumulated onsite prior to disposal, and such accumulation would be regulated by waste rules in Chapters 330 and 335. By allowing the regulated community to accumulate waste material onsite, overall effort

and disposal costs may be reduced due to the ability to accumulate and dispose one larger amount of waste, rather than being required to repeatedly dispose small amounts of waste.

The commission proposes amending §334.48(h)(1)(A) by adding an exception to the periodic operation and maintenance walkthrough inspections for UST systems which do not receive fuel deliveries at intervals greater than every 30 days. The commission recognizes 30-day inspections at these sites would be unnecessary as the spill prevention equipment would not have been utilized by the fuel delivery company between some of the 30-day inspections. These facilities may inspect after each fuel drop. The purpose of this addition is to provide an exception for lower volume facilities and to avoid requiring unnecessary inspections at these types of facilities.

The commission proposes adding §334.48(h)(1)(B) to establish requirements for annual periodic operation and maintenance walkthrough inspections. These inspections must be conducted annually and cover certain types of equipment and conditions. These changes are necessary to comply with the requirements of 40 CFR Parts 280 and 281. The commission proposes modifying federal requirements regarding certain containment sumps such that older containment sumps will not be required to be watertight. Containment sumps installed before January 1, 2009, were not required to be watertight and, therefore, could not now be expected to prevent water from seeping in from the outside. The commission is, therefore, proposing inspection requirements

that achieve the goal of mitigating and preventing releases by creating four distinct categories of equipment with different required annual inspections (as listed in §334.48(h)(1)(B)(i) - (iv)). These categories include containment sumps (pre and post-2009 installation), sites that have no containment sump, and hand-held release detection equipment. The purpose of these additions is to provide reasonable and appropriate requirements for the installed equipment at a UST.

The commission proposes adding §334.48(h)(2) to allow for the use of a standard code of practice developed by a nationally recognized association to satisfy the new inspection requirements in §334.48(h)(1) so long as it is no less stringent than the requirements in §334.48(h)(1)(A). The purpose of the addition is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes adding §334.48(i) to introduce new requirements for periodic inspections of airport hydrant systems. These changes are necessary to comply with the new requirements in 40 CFR Parts 280 and 281.

The commission proposes adding §334.48(i)(1) and (2) to specify the inspection requirements for specific areas. The purpose of these additions is to ensure that hydrant pits and hydrant piping vaults are undamaged, empty of debris and liquid, and are not leaking, which serves to protect human health and the environment.

The commission proposes amending §334.48(j), existing §334.48(g), by specifying additional requirements regarding which types of information must be kept in inspection records mandated by §334.10(b). The new records are meant to cover recordkeeping for the expanded walkthrough inspection requirements in §334.48(h). The purpose of this amendment is to ensure the agency is provided with the appropriate documentation to ensure compliance with the regulations.

*§334.49, Corrosion Protection*

The commission proposes adding §334.49(c)(4)(B)(i) - (v) to incorporate newly accepted standards and practices which may be used to comply with cathodic protection inspection and testing requirements in this section. The purpose of the amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

*§334.50, Release Detection*

The commission proposes amending §334.50(b)(2)(B)(i) which will specify applicability to tanks and/or piping installed prior to January 1, 2009. The purpose of the amendment is to clarify regulations regarding methods of release detection that may be used by tanks or piping installed prior to January 1, 2009. In addition, the commission has proposed amendments in other subsections that will modify the release detection requirements for tanks and piping installed on or after January 1,



2009. The commission determined that it was necessary to clarify that the release detection methods in §334.50(b)(1)(A), (2)(A)(ii) and (B)(i) apply only to tanks installed prior to January 1, 2009.

The commission proposes adding §334.50(b)(1)(B) and (2)(A)(iii) and (c)(4)(B) to specify interstitial monitoring as a mandatory primary method of release detection for tanks installed on or after January 1, 2009. The existing rules in §334.45(d)(1)(E) required tanks, lines, and/or dispensers installed on or after January 1, 2009, to be secondarily contained and monitored. However, the existing rules in §334.45(d)(1)(E) did not previously mandate that UST systems use interstitial monitoring for release detection. The purpose of this amendment is to require interstitial monitoring be used for release detection in those UST systems by September 1, 2018, which will make these systems subject to new walkthrough inspection, and periodic testing and inspection requirements in §334.48(g) and (h), respectively. These changes are necessary to comply with the requirements of 40 CFR Parts 280 and 281.

The commission proposes amending and/or adding §334.50(b)(1)(A) and (B), (2)(A)(ii)(II) and (III) and (iii), (B)(i)(II) and (ii), (d)(1)(B)(ii) and (iii)(IV), (d)(3), (C)(i)(III), (iii) and (iv), (4)(A)(iii)(I) and (II) and (B)(iv), (5)(C) and (F)(ii), (6)(E)(ii), (7)(B) and (C), (8)(B) and (C), and (9)(A)(iii) and (iii)(V) to change the frequency of monitoring to a 30-day period from a monthly period (not to exceed 35 days). The purpose of these amendments and additions is to create a time frame for monitoring that more quickly detect releases

and is consistent with the requirements of 40 CFR Parts 280 and 281.

The commission proposes amending and/or adding §334.50(b)(1)(A) and (B), (2)(A)(ii) and (iii), (B)(i) and (ii), (c)(4)(A) and (B), to specify a date for each rule which states the applicability of the rule based on the installation date of the tank. In addition, for tanks and piping installed on or after January 1, 2009, language was added to require the use of interstitial monitoring as a release detection method no later than September 1, 2018. The purpose of this amendment was to fully implement the periodic testing and walkthrough inspection requirements in §334.48(g) and (h) which have specific requirements for facilities which use interstitial monitoring for release detection. By requiring UST systems with tanks and/or piping installed on or after January 1, 2009, to use interstitial monitoring for a release detection method, the commission intends these facilities to become subject to requirements for periodic testing and walkthrough inspection requirements. The implementation date of September 1, 2018, was chosen because it allows a delay of about three months from the expected date of rule adoption, and matches the implementation for newly installed UST systems in §334.48(g)(2).

Additionally, the commission proposes amending existing §334.50(b)(1)(C) by moving the requirements for manual tank gauging within the same paragraph and reorganizing the requirements to fit into proposed §334.50(b)(1)(B) - (D). The purpose of this amendment is to improve clarity of the rule language. The commission

proposes adding §334.50(b)(1)(B), and removing §334.50(b)(1)(B)(i) - (ii). A combination of tank tightness testing and inventory control was an acceptable form of release detection until December 22, 1998, as long as certain criteria were met. The proposed revisions remove this method of release detection as the deadline has passed. The commission proposes adding §334.50(b)(1)(B) to include updates corresponding to §334.50(d)(7), which require the use of approved interstitial monitoring release detection methods. The commission proposes adding §334.50(b)(1)(D) to include updates corresponding to §334.50(d)(3), which allow for 30-day tank gauging to be used as the sole source of release detection for emergency generator tanks. This method is sufficient because emergency generators are typically used infrequently. Since the commission proposes updating release detection requirements for tanks, the commission also proposes making corresponding updates to release detection requirements for piping by adding §334.50(b)(2)(A)(iii). These updates are in recognition of the latest technical advances which allow releases to be prevented and detected more quickly. A compliance deadline of September 1, 2018, is being proposed, which will give the regulated community adequate time to procure and install equipment.

The commission proposes amending §334.50(b)(2)(B)(ii) to require suction lines be tested or monitored for releases at a frequency of not less than every 30 days instead of what was previously required (monthly (not to exceed 35 days)). The purpose of this amendment is to create a more regular and consistent time frame for monitoring,

which improves the commission's ability to gain compliance and enforce the regulations, and allows releases to be more easily detected and prevented.

The commission proposes amending §334.50(b)(2)(B)(iii)(III) to clarify and make more enforceable the limit of one check valve per line. The purpose of the amendment is to remove any ambiguity and provide clarification for the regulated community.

The commission proposes amending §334.50(c)(3) to remove "and monitoring" to reflect the fact that the requirements of this subsection only concern the design, construction, installation, and maintenance of secondary containment. Monitoring of secondary containment is included in §334.50(d).

The commission proposes amending §334.50(c)(3)(A) by incorporating it into §334.50(c)(3) and adding "(relating to Technical Standards for New Underground Storage Tank Systems; and Installation Standards for New Underground Storage Tank Systems)." The purpose of the amendment is to add language clarifying which requirements the noted citations reference.

The commission proposes adding §334.50(c)(4) to create a "Release detection" paragraph and relocating language previously in §334.50(c)(3)(B) to proposed §334.50(c)(4). The purpose of this amendment is to reorganize the requirements such that there is a clear section for dealing with release detection for hazardous UST

systems. In addition, language is proposed for §334.50(c)(4)(A) and (B) to require interstitial monitoring as the method of release detection for tanks installed after January 1, 2009, and to require compliance by September 1, 2018. The purpose of the addition is to clarify requirements related to certain UST systems and to detect releases more quickly.

The commission proposes amending §334.50(d)(1) to remove "testing" and add the word "requirements." The purpose of this amendment is to remove any ambiguity and provide clarification for the regulated community.

The commission proposes amending §334.50(d)(1)(B)(i) to incorporate an industry standard which may be used to comply with the rule. The purpose of this amendment is to provide interested parties with resources which may be useful in compliance with the requirements.

The commission proposes amending §334.50(d)(4) to replace the term "and" with "in combination with" to clarify that these two methods must be used together in order to satisfy release detection requirements.

The commission proposes adding §334.50(d)(4)(A)(iii) and (I) and (II) to include new requirements for automatic tank gauge (ATG) testing. Requirements concerning operating modes and monitoring frequencies are included. The purpose of these

additions is to account for new technology since the previous requirements were adopted and to detect releases more quickly.

The commission proposes amending §334.50(d)(4)(B) and (B)(iv) to include used oil tanks in requirements previously applicable only to emergency generator tanks and to clarify that inventory control is not required for these types of tanks with ATG equipment. Inventory control typically is not feasible on used oil tanks because used oil tanks lack dispensers, which makes daily physical measurement unduly burdensome, and because tank levels do not always change from day to day. To account for more flexible regulations on used oil tanks while remaining protective of human health and the environment, an additional requirement is proposed for ATG's utilized in used oil tank systems. The purpose of this additional requirement is to ensure the ATG equipment is capable of accurately monitoring water levels at a level specified by the commission.

The commission proposes amending §334.50(d)(9) to clarify that SIR must be used in combination with inventory control in order to be a sufficient method of release detection.

The commission additionally proposes amending §334.50(d)(9)(A)(ii) by relocating inventory control analysis requirements in proposed §334.50(d)(9)(A)(ii)(I). The purpose of this amendment is to account for a new SIR methodology requirement

proposed by adding §334.50(d)(9)(A)(ii)(I) and (II).

The commission proposes adding §334.50(d)(9)(A)(ii)(I) and (II) to relocate language from §334.50(d)(9)(A)(ii) and to include a new requirement which mandates a minimum allowable threshold that may be used in SIR methodology. The purpose of requiring a minimum allowable threshold is to improve the quality of release detection calculations.

The commission additionally proposes amending §334.50(d)(9)(A)(iii)(IV) to require SIR reports to include the date that the SIR analysis was conducted. The purpose of this amendment is to ensure agency personnel can make an accurate determination of compliance with release detection requirements. Renumbering was required to change existing §334.50(d)(9)(A)(iii)(IV) to §334.50(d)(9)(A)(iii)(V), and existing §334.50(d)(9)(A)(iii)(V) to §334.50(d)(9)(A)(iii)(VI).

The commission proposes amending §334.50(d)(10) to correct a typographical error by changing paragraphs "(1) - (8)" to paragraphs "(2) - (9)."

The commission proposes adding §334.50(e)(2)(F) to specify that site assessment vapor monitoring and groundwater monitoring records are subject to recordkeeping requirements, and that records must be signed by an appropriate licensed professional with experience in a relevant technical discipline. The purpose of this amendment is to

ensure owners and operators maintain adequate documentation of monitoring to demonstrate that a release has not occurred. This documentation is necessary to determine compliance with other relevant requirements prohibiting releases.

*§334.51, Spill and Overfill Prevention and Control*

The commission proposes amending §334.51(a)(5) by removing a reference to §334.42(d) and adding §334.51(a)(5)(A) - (C) to include accepted industry standards and practices which may be used to comply with this section. The purpose of the amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes amending §334.51(a)(6) to specify that spill and overfill prevention equipment must be monitored or tested in accordance with §334.48(g) and (h). The purpose of this amendment is to ensure interested parties are aware of the new requirements implicated by the language.

The commission proposes amending §334.51(b)(1) by clarifying that all UST systems, without regard to date of installation, are required to be in compliance with this subsection for the entire operational lives of the UST systems. The purpose of this amendment is to simplify existing language.

The commission proposes removing §334.51(b)(1)(A) and (B) because the proposed



amendment to §334.51(b)(1) makes these paragraphs unnecessary.

The commission proposes amending §334.51(b)(2)(C)(ii) to prohibit flow restrictor devices from being used as a method of overfill prevention installed and replaced after September 1, 2018. The purpose of this amendment is to prevent flow restrictor devices from being installed at new facilities or as replacement equipment because the commission has determined that flow restrictor devices are not as reliable as other overfill prevention methods.

The commission proposes amending and reorganizing §334.51(b)(4). The commission proposes removing §334.51(b)(4)(B) since the deferral date of December 22, 1998, has passed. The commission proposes renumbering existing §334.51(b)(4)(A)(i) - (iii) to §334.51(b)(4)(A) - (C), respectively.

The commission proposes amending §334.51(c)(2)(B) to add records related to inspection, monitoring, and testing to the existing list of records which are required to be maintained. The purpose of this amendment is to more fully specify what records owners and operators are required to keep and to ensure the commission has appropriate documentation to ensure compliance with new requirements to prevent spills and overfill events.

*§334.52, Underground Storage Tank System Repairs and Relining*

The commission proposes adding §334.52(a)(3)(A) - (H) and §334.52(b)(4)(B)(i) - (iii) to list accepted industry standards and practices. The purpose of these additions is to provide interested parties with resources which may be useful in understanding repair and relining requirements. The commission proposes amending §334.52(a)(3) and (b)(4)(B) to introduce newly added industry standards and practices listed in §334.52(a)(3)(A) - (H) and §334.45(b)(4)(B)(i) - (iii), respectively, and which may be used to comply with the respective sections. The purpose of this amendment is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

The commission proposes renumbering §334.52(d) to §334.52(e) and amending to §334.52(d) introduce new requirements regarding tank system and ancillary equipment repairs.

The commission proposes adding §334.52(d)(1) and (2) which lists the requirements for testing and inspection of repaired components of UST systems. Additionally, the new paragraphs specify that these requirements must be met within 30 days of the completed repair. The purpose of this addition is to require that repaired components be properly tested after repair to ensure proper operation. Proper operation is necessary to prevent impacts to human health and the environment.

*§334.54, Temporary Removal from Service*

The commission proposes adding §334.54(b)(3) to exempt temporarily out of service UST systems, as defined within the section, from spill and overflow operation and maintenance testing, and walkthrough inspections. The commission recognizes UST systems which are temporarily out of service have different testing and inspection requirements from those in operation.

The commission proposes amending §334.54(d) to reorganize information within the subsection and to add an exemption from new requirements. These amendments include: moving the language which previously followed "Empty system" to §334.54(d)(1); amending §334.54(d)(2) by creating a paragraph solely dedicated to the definition of "empty" as it pertains to temporarily out of service tanks; and moving the language which was previously §334.54(d)(1) - (3) to §334.54(d)(2)(A) - (C) and adding a reference to release detection to §334.50(d)(2)(A). The purpose of these amendments is to reorganize existing language to incorporate the addition of language in §334.54(d)(1)(B) to exempt temporarily out of service UST systems from the release detection operation and maintenance testing and inspections as listed in §334.48(e)(1) if the UST systems meet the definition of empty. The purpose of this amendment is ensure that empty UST systems are not required to test and inspect release detection which is not being used.

*§334.55, Permanent Removal from Service*

The commission proposes amending §334.55(a)(8) and (9) and §334.55(e)(1)(A) and (B)

to replace "the effective date of this subchapter" with the actual date the subchapter became effective, September 29, 1989. The purpose of this amendment is to replace the reference with the actual date which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

The commission proposes revising §334.55(b)(2), (4)(A) and (C) to require that owners and operators obtain prior approval from TCEQ regional offices instead of district offices when engaging in activities related to the removal of tanks (e.g., storing, emptying, cleaning, or purging). The purpose of these revisions is to accurately reflect the current structure of the TCEQ and remove the outdated reference to the TNRCC organizational structure.

The commission proposes revising the recordkeeping requirements in §334.55(f)(2) for USTs permanently removed from service. Owners and operators are required to maintain records as long as any UST remains in service or for five years after the UST is removed, whichever is longer. However, various other sections in Chapter 334 require that owners and operators maintain records as long as a UST remains in service. Therefore, the commission proposes removing the recordkeeping requirements related to in-service USTs from this subsection while retaining a five-year recordkeeping requirement for USTs permanently removed from service, which is consistent with commission record retention requirements elsewhere in this chapter. These records are necessary in order to support compliance determinations and

demonstrate that any impact to human health and the environment has been addressed when a UST is permanently removed from service.

The commission proposes adding §334.55(g)(1) - (5) to list the newly accepted standards and practices which may be used to comply with the section. The purpose of the additions is to provide the regulated community with updated and adequate information which can be used to comply with the regulations.

*§334.72, Reporting of Suspected Releases*

The commission proposes amending §334.72(2) to add "or liquid in the interstitial space of secondarily contained systems which serves" to further specify instances that may qualify as "unusual operating conditions." Liquid (intended to cover water, product, or other substances in the liquid-phase) in the interstitial space that is not used for interstitial monitoring indicates there is a problem with the UST system which requires attention and resolution. As a result, the commission is including this as an unusual operating condition and proposes requiring UST owners and operators to investigate and address the condition in order to minimize impacts to the environment and human health.

The commission proposes adding §334.72(2)(A) - (C) to incentivize a prompt response to suspected releases by reducing reporting requirements as long as owners and operators take prompt action to investigate and respond to a suspected release.

The commission proposes amending §334.72(3) to add "including investigation of an alarm," to the conditions that would require a suspected release investigation. The purpose of an alarm is to alert UST owners and operators of a potential problem. Once alerted, owners and operators must respond and appropriately address all release detection monitoring alarms. Due to the additional interstitial monitoring requirements proposed in this rulemaking, there will be an increase in the use of interstitial monitoring and a potential increase in the number of alarm events. For example, some interstitial monitoring systems may trigger an alarm, which indicates that there may be a potential release or that the interstitial space may have been compromised. The commission has determined that owners and operators should not be required to report alarms from defective system equipment or components, alarms that are investigated and determined to be a non-release, or leaks which are contained in the interstitial space. However, the commission still proposes requiring owners and operators to investigate and repair problems that may be discovered.

The commission proposes amending §334.72(3)(B) to specify a reference to §334.50(d)(1)(B), the monitoring period for inventory control as being a "30-day period" rather than a "month," and to add "or the alarm investigation determines no release has occurred." The purpose of these amendments is to ensure compliance with new requirements elsewhere in the chapter, create a more regular and consistent time frame for testing, and add an exception for possible technical glitches.

The commission proposes adding §334.72(3)(C)(i) and (ii) to specify the instances when leaks found contained in secondary containment do not require agency notification.

The commission proposes amending §334.72(3)(C)(i) by requiring agency notification in cases when liquid that meets the criteria in §334.50(d)(8)(C) is found in secondary containment. However, the commission recognizes that leaks found contained in secondary containment that do not meet the criteria in §334.50(d)(8)(C) do not require agency notification, so long as the problem is remedied.

The commission proposes amending §334.72(3)(C)(ii) by not requiring agency notice in situations where defective system equipment or components are responsible for causing a leak within the secondary containment but are immediately replaced or repaired. The commission recognizes mechanical failures occur, but that repairing the faulty component or equipment sufficiently resolves the issue.

The commission proposes adding §334.72(3)(D) to specify that alarms investigated and determined to be non-releases do not require agency notice. The commission recognizes technical glitches may occur and, if immediately resolved, do not require the attention of the agency.

The commission proposes removing §334.72(4) because the requirements are

duplicative of the requirements in §334.72(2) and (3).

*§334.74, Release Investigation and Confirmation Steps*

The commission proposes amending §334.74(1) to add a reference to the proposed amended secondary containment testing in §334.48(e). The purpose of this amendment is to ensure interested parties are aware of all requirements which are implicated by this paragraph and the language which follows.

The commission proposes amending §334.74(1)(A) to introduce the requirements for system tests following a suspected release. The commission proposes adding §334.74(1)(A)(i) and (ii) to list the specific requirements for a system test conducted in response to a suspected release. These additions require a determination of whether a leak exists in the portion of the tank which routinely contains product or attached delivery piping, or if a breach of either wall of the secondary containment has occurred. The purpose of these additions is to ensure that system tests cover all portions of the UST system which may have resulted in the release to help prevent a reoccurrence.

The commission proposes renumbering §334.74(1)(A) - (C) to §334.74(1)(B) - (D), respectively, to account for the added amendment.

The commission proposes amending §334.74(1)(B), existing §334.74(a)(A), to add



language specifying the applicability to system tests which confirm a leak into the interstice or a release. The purpose of this amendment is to limit the applicability to only situations where a system test confirms a leak.

*§334.123, Exemptions for Aboveground Storage Tanks (ASTs)*

The commission proposes inserting a hyphen in the term "non-commercial" in §334.123(a)(1) to be consistent with §334.2.

The commission proposes amending §334.123(b)(1)(A) by removing the reference to the Natural Gas Pipeline Safety Act of 1968, and moving the reference to the Hazardous Liquid Pipeline Safety Act of 1979 from §334.123(b)(1)(B) to §334.123(b)(1). This removal is proposed because the controlling statute, TWC §26.344, was amended by SB 901 during the 83rd Texas Legislature (effective September 1, 2013), and no longer includes a reference to the Natural Gas Pipeline Safety Act of 1968.

*§334.124, Exclusions for Aboveground Storage Tanks (ASTs)*

The commission proposes amending §334.124(a)(2) to alter the time frame of inspection from once a month to 30 days. The purpose of this amendment is to be consistent with other sections of the rules where monthly time frames are proposed to change to 30 days, such as throughout §334.50, and to create a more regular and consistent time frame for monitoring in order to prevent and more quickly detect releases.

*§334.125, General Prohibitions and Requirements for Aboveground Storage Tanks (ASTs)*

The commission proposes amending §334.125(a) to replace "the effective date of this subchapter" with "June 25, 1990," which is the effective date of the subchapter. The purpose of this amendment is to replace the reference with the actual date, which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

*§334.127, Registration for Aboveground Storage Tanks (ASTs)*

The commission proposes amending §334.407(c) by removing the March 1, 1990, effective date. The purpose of this amendment is to provide clarity for the regulated community since this date has passed.

*§334.491, Notice to Owners or Operators*

The commission proposes amending §334.491(a) to replace "the effective date of these rules" with "December 27, 1996," which was the original effective date of this section. The purpose of this amendment is to replace the reference with the actual date, which will provide clarity for the regulated community and help ensure consistent compliance and enforcement determinations.

*§334.605, Operator Training Frequency*

The commission proposes adding §334.605(d) to specify that notwithstanding the training requirements in §334.605, Class A and Class B operators must be re-trained by April 1, 2019, with a course submitted to and approved by the agency after April 1, 2018. The purpose of this amendment is to require re-training of operators after the new rules become effective so operators can be adequately informed on the new regulations.

**Fiscal Note: Costs to State and Local Government**

Jeffrey Horvath, analyst in the Chief Financial Officer Division, determined that for the first five-year period the proposed rules are in effect, no significant fiscal implications are anticipated for the agency as a result of the administration or enforcement of the proposed rules. No fiscal implications are anticipated for other units of state or local government unless they own or operate USTs. Costs for these units of state or local government will be the same as those for businesses that own or operate USTs and will include additional costs for three-year overfill prevention equipment testing, annual release detection equipment testing, and waste or wastewater management costs generated from the testing.

The proposed rules incorporate specific EPA rules and are necessary in order for the State of Texas to be consistent with federal UST rules and the EPCRA, 2005. The proposed revisions increase the emphasis on proper operation and maintenance of UST equipment, address UST systems deferred in the 1988 regulation, incorporate

current technologies and practices, and make technical and editorial corrections. The proposed rulemaking will update Chapter 334 to include these federal rule revisions so that the State of Texas is able to reapply to EPA for SPA.

The proposed rules will add requirements for 30-day walkthrough inspections, three-year overfill prevention equipment testing, and annual release detection equipment testing. The rulemaking also proposes minor revisions relating to the fee on delivery of petroleum products and the funding of the Petroleum Storage Tank Remediation (PSTR) Account 655 that were implemented in 2015 as a result of the passage of HB 7, 84th Texas Legislature, 2015.

HB 7, amended TWC, §26.3574(b-1), to change the calculation method of the petroleum products delivery fee, which funds the PSTR account. HB 7 required the agency to exclude amounts appropriated by the Legislature for monitoring or remediation of PST releases occurring on or before December 22, 1998, when setting the petroleum product delivery fee. The PST program had used approximately \$10.8 million of appropriated funds from Account 655 to manage the cleanup of releases that occurred on or before December 22, 1998. The provisions in HB 7 would require that the unexpended balance in the account be used to fund monitoring and cleanup of the remaining sites with releases reported to the commission on or before December 1998 and, therefore, decrease the fund balance of the PSTR account by approximately \$10.8 million each year. Fee rates may need to be adjusted in future years to ensure adequate

funding to address additional new sites that may become a state obligation (because the owner/operator is either financially unable, cannot be found, or is unwilling).

Under the EPCRA, 2005, over 6,000 UST facilities should be investigated annually to meet the three-year inspection cycle prescribed by the EPCRA, with the current triennial cycle beginning on October 1, 2016, and ending on September 30, 2019. Federal funds have been used to fund the required investigation activities. The ability to make substantial progress toward meeting the three-year inspection cycle will be contingent on continued federal funding.

In December 2012, EPA presented an updated allocation formula for distribution of Leaking UST (LUST) grant dollars to the states. The formula included a base grant dollar amount (decreased beginning Fiscal Year (FY) 14 from \$288,000 to \$250,000) plus a percentage to represent the overall calculated need of each state. Beginning in 2013, EPA informed the commission that the available funding for the LUST grant would be cut by 14%, from \$1,981,000 to \$1,710,354, and then cut further in subsequent years. The match for this grant funding is 75% Federal/25% State. While the commission previously "carried-forward" grant fund balances after each FY into the new FY, EPA informed the commission that carry forward would no longer be allowed beginning FY 16, and that additional funding given to the State of Texas in previous years would no longer be available.

Given the large number of USTs in Texas and its geographic size, along with population growth and an increasing universe of UST facilities, meeting the inspection requirement of the EAct is challenging. Based on recent correspondence and discussion with EPA, it is understood that EPA is currently unable to provide any additional federal funds beyond the base UST grant to address Texas' unique circumstances with regard to the EAct. Funding will continue to be a critical factor in meeting the requirements in the EAct, 2005. Also, there may be additional agency costs when a more comprehensive investigation is needed and additional enforcement actions are necessary.

Since FY 2011, an intergovernmental contractor has been utilized to coordinate and perform EAct investigations annually in Texas on behalf of the commission. Currently, there are a total of 18 contracted investigator positions (through the University of Texas at Arlington (UTA)) utilized to perform activities pursuant to EAct compliance investigations. Additionally, there are two contracted enforcement coordinator positions for the UTA contract to assist with work on commission PST enforcement cases.

In addition to work performed under the UTA state-wide contract, beginning in 2015, efficiencies were instituted for performance of Stage II PST investigations to allow for credit under EAct requirements due to the relationship between Stage I, Stage II, and EAct requirements. In doing so, work performed by agency staff and locally

administered programs funded through contracts began to contribute to satisfying EPAct requirements in addition to the work performed under the UTA state-wide contract. These locally administered programs, or local air programs, include the City of Dallas, City of Fort Worth, City of El Paso, Galveston County, and UTA operating within the city limits of Houston.

For FY 16, the equivalent of 44 full-time positions (FTEs) participated in the commission's PST investigation program. While the commission did not utilize grant dollars for employee salaries, the 25% match required for the LUST grant was provided by commission staff performance of an equivalent amount of investigations funded with state PST dollars. Additionally, when performing an investigation at a facility eligible for an EPAct investigation, state funded FTEs make a concerted effort to ensure the investigation scope satisfies minimum EPAct requirements.

The intergovernmental contractor will coordinate and perform EPAct investigations on behalf of the commission under a contract worth approximately \$1.3 million in federal funds for FY 2017. If the agency does not receive similar levels of federal funding in future years, the agency will likely not be able to meet the investigation requirements of the EPAct unless other sources of funding become available.

Fiscal implications are anticipated for other units of state and local government who own or operate underground PSTs. These owners and operators will have additional

costs for 30-day walkthrough inspections, three-year overfill prevention equipment testing, annual release detection equipment testing, and waste or wastewater management costs generated from the testing. Affected entities would include state agencies, cities, counties, school districts, navigation districts, transportation authorities, and others. Agency staff estimate that there would be at least 873 registered underground PST facilities that would be affected by the proposed rules.

The commission used EPA's cost estimates for elements of the rule that are new to Texas. Based on EPA's unit costs, for an average gas station with three tanks, three spill buckets, and four dispensers, the average cost is \$5,355, with approximately \$2,841 as a one-time costs, \$2,301 as operation and maintenance costs, and \$213 in repair/replacement costs. Approximately half of the operation and maintenance costs would be annual costs with the remaining occurring every three years. This cost estimate does not include disposal costs for waste or wastewater generated as a result of new testing requirements which could double the costs.

### **Public Benefits and Costs**

Mr. Horvath also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rules will be compliance with federal law and the enhanced protection of the environment and public health and safety through the prevention of releases of regulated substances to the environment from underground PSTs.



Fiscal implications are anticipated for businesses and individuals as a result of the administration or enforcement of the proposed rules. Owners and operators of PSTs at gas stations and other facilities such as fleet refueling stations and airports will be impacted. These owners and operators will have additional costs for walkthrough inspections, three-year overfill prevention equipment testing, annual release detection equipment testing, and waste or wastewater management costs generated from the testing.

Texas has approximately 20,000 active (in-use or temporarily out of service) registered underground PST facilities, many with multiple tanks on their facilities. EPA provided estimated costs for the rule implementation when they published the final revisions to the UST Regulations in July, 2015.

The commission used EPA's cost estimates for elements of the rules that are new to Texas. Some federal requirements were already in place in Chapter 334. EPA's cost estimate did not include disposal costs for waste or wastewater generated as a result of new testing requirements. During stakeholder meetings, concerns were raised that for owners/operators that choose hydrostatic testing as an option, costs could be significant. Stakeholders further commented that although the federal regulations allow for vacuum or hydrostatic testing, vacuum testing has already been determined not to be a viable option. Stakeholders believe that the expense to properly dispose of

test water can be as much as or exceed the cost of the test.

Based on EPA's unit costs, for an average gas station with three tanks, three spill buckets, and four dispensers, the average cost is estimated to be \$5,355, with approximately \$2,841 as one-time costs, \$2,301 as operation and maintenance costs, and \$213 in repair/replacement costs. Approximately half of the operation and maintenance costs would be annual costs with the remaining occurring every three years.

Not all facilities are subject to EPCRA investigations; therefore, the actual number of facilities subject to the rules could be less than the registered 20,000 underground PST facilities. This cost estimate does not include disposal costs for waste or wastewater generated as a result of new testing requirements which could double the costs.

A link to EPA's Assessment of the Potential Costs, Benefits, and Other Impacts of the Final Revisions to UST Regulations can be found here:

(<https://www.epa.gov/sites/production/files/2015-07/documents/regs2015-ria.pdf>).

### **Local Employment Impact Statement**

The commission reviewed this proposed rulemaking and determined that a Local Employment Impact Statement is not required because the proposed rules do not adversely affect a local economy in a material way for the first five years that the

proposed rules are in effect.

### **Rural Communities Impact Assessment**

The proposed rules will not affect rural communities in any way different from non-rural communities for the first five years that the proposed rules are in effect. There are approximately 1,103 cities or towns with a population of 25,000 or less. There are approximately 6,291 regulated entities with PSTs in these rural municipalities. Costs to businesses in these communities will be the same as those for businesses in larger communities. Requirements for businesses that own or operate PSTs in rural communities must be consistent with federal regulations in order for Texas to maintain federal program approval.

### **Small Business and Micro-Business Assessment**

Adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules. The proposed rules will have the same effect on a small business as on a large business. There are an estimated 4,715 gas stations that would be classified as small or micro-businesses according to the North American Industry Classification System table on the Comptroller's website. EPA estimated a small business cost of \$658 per facility to implement the new testing and inspection requirements in the proposed rules. This would equate to an estimated total cost of \$3,102,470 statewide for small or micro-businesses to implement the proposed rules.

This cost estimate does not include disposal costs for waste or wastewater generated as a result of new testing requirements which could double the costs.

### **Small Business Regulatory Flexibility Analysis**

The commission reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rules are necessary to comply with federal law and is, therefore, consistent with the health, safety, or environmental or economic welfare of the state and the agency need not consider other regulatory methods during the first five years that the proposed rules are in effect.

### **Government Growth Impact Statement**

The commission prepared a Government Growth Impact Statement Assessment for this proposed rulemaking. Any impacts to government growth are the result of changes to federal law and not the result of this rulemaking. The proposed rules do not create or eliminate a government program nor require the creation of new employee positions or the elimination of existing employee positions.

The proposed rules could result in an increase in future legislative appropriations to the agency and may require an increase in fees paid to the agency. Given the sheer number of USTs in Texas and its geographic size, along with population growth and an increasing universe of UST facilities, meeting the inspection requirement of the EPAct

is challenging. At this time, it is understood that EPA is currently unable to provide any additional federal funds beyond the base UST grant to address Texas' unique circumstances with regard to the EPAct. If the agency does not receive similar levels of federal funding in future years, it is likely that the agency will not be able to meet the investigation requirements of the EPAct unless other sources of funding become available.

The provisions in HB 7 would require that the unexpended balance in the account be used to fund monitoring and cleanup of the remaining sites with releases reported to TCEQ on or before December 1998 and, therefore, decrease the fund balance of the PSTR Account by approximately \$10.8 million each year. Fee rates may need to be adjusted in future years to ensure adequate funding to address additional new sites that may become a state obligation (because the owner/operator is either financially unable, cannot be found, or is unwilling).

The proposed rules do not create a new regulation. However, it does expand an existing regulation in that the proposed rules will add requirements for 30-day walkthrough inspections, three-year overfill prevention equipment testing, and annual release detection equipment testing. The proposed rules do not increase or decrease the number of individuals subject to the rule's applicability.

During the first five years that the proposed rules would be in effect, it is not

anticipated that there will be an adverse impact on the state's economy. Overall the new testing and inspection requirements are not expected to result in significant costs per facility or gas station according to EPA estimates.

### **Draft Regulatory Impact Analysis Determination**

The commission reviewed the rulemaking in light of the regulatory impact analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a "major environmental rule" as defined in that statute. A major environmental rule means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The specific intent of this rulemaking is to "protect the environment" by adding secondary containment requirements for new and replaced tanks and piping; operator training requirements; periodic operation and maintenance requirements for UST systems; requirements to ensure UST system compatibility before storing certain biofuel blends; removing past deferrals for emergency generator tanks, field constructed tanks, and airport hydrant systems; and updating codes of practice. The second prong of the definition of a "major environmental rule" is not met. The proposed rules will not adversely affect, in a material way, the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public

health and safety of the state or a sector of the state. EPA performed an assessment of the potential costs, benefits, and other impacts associated with implementing the 2015 amendments to its UST program and concluded that the market impacts are likely to be diffuse and minimal. A link to EPA's Assessment of the Potential Costs, Benefits, and Other Impacts of the Final Revisions to Underground Storage Tank Regulations can be found here: (<https://www.epa.gov/sites/production/files/2015-07/documents/regs2015-ria.pdf>). Based on Mr. Horvath's analysis and the EPA's assessment, the commission has concluded that the proposed rules will not adversely affect, in a material way, the economy, a sector of the economy, productivity, competition, or jobs. Additionally, neither the environment nor the public health and safety of the state, or a sector of the state, will be adversely affected because the proposed rules are intended to enhance protections of the environment and public health and safety through the prevention of releases of regulated substances from underground PSTs. Although not required, the commission additionally reviewed the rulemaking considering the regulatory impact analysis requirements of Texas Government Code, §2001.0225. That section states: "(a) This section applies only to a major environmental rule adopted by a state agency, the result of which is to: (1) exceed a standard set by federal law, unless the rule is specifically required by state law; (2) exceed an express requirement of state law, unless the rule is specifically required by federal law; (3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or (4) adopt a rule solely under the general

powers of the agency instead of under a specific state law." This proposed rulemaking does not meet any of the four applicability requirements and thus is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225. Specifically, the proposed amendments are intended to implement federal requirements, make the rules easier to read and understand, and improve program efficiency. First, the proposed rulemaking does not exceed any federal requirements because the program would allow Texas to continue to operate the UST program in lieu of federal regulation; therefore, the proposed rules are required to be consistent with federal law. Second, the proposed rulemaking does not exceed any state requirements because TWC, Chapter 26, establishes requirements for the commission's UST program and does not prohibit rules governing technical and operational requirements for UST systems or training requirements. Third, the proposed rule package does not exceed any delegation agreement or contract because there has been no delegation agreement or contract; in lieu of federal regulation, Texas operates a UST program, which is subject to the EPA's approval. Finally, the rulemaking is being proposed under TWC, §§26.011, 26.039, 26.341, 26.345, 26.347, 26.3475, 26.348, 26.351, and 26.3574 and not solely under the general powers of the agency. The proposed rulemaking is intended to satisfy the amended minimum requirements set for state UST programs promulgated by EPA, which will allow Texas to continue to operate a UST program in lieu of federal regulation. Accordingly, the commission has determined that the rulemaking is not subject to Texas Government Code §2001.0225, because it does not meet any of the four requirements listed in Texas Government Code, §2001.0225(a).



Written comments on the Draft Regulatory Impact Analysis Determination of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

### **Takings Impact Assessment**

The commission evaluated this rulemaking and performed analysis of whether these proposed rules constitute a taking. Texas Government Code, §2007.002(5), defines a taking as either: 1) a governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or Sections 17 or 19, Article I, Texas Constitution; or 2) a governmental action that affects an owner's private real property that is the subject of the governmental action, in whole or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and is the producing cause of a reduction of at least 25% in the market value of the affected private real property, determined by comparing the market value of the property as if the governmental action is not in effect and the market value of the property determined as if the governmental action is in effect.

The primary purpose of these proposed rules is to implement the 2015 amendments

to the EPA's UST program. The proposed rules substantially advance this purpose by addressing such items as secondary containment requirements for new and replaced tanks and piping, operator training requirements, periodic operation and maintenance requirements for UST systems, UST system compatibility before storing certain biofuel blends, removal of past deferrals for emergency generator tanks, field constructed tanks, airport hydrant systems, and updated codes of practice, to mirror as closely as possible the 2015 amendments to the EPA's UST program. The rulemaking is being proposed to incorporate minimum federal requirements for the purpose of submitting Texas's UST regulatory program for review and approval which will allow Texas to retain independent administration in lieu of federal regulation. Under 40 CFR §282.93, "Texas is approved to administer and enforce an underground storage tank program in lieu of the federal program under Subtitle I of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 USC, §§6991 *et seq.*" Regarding enforcement authority, 40 CFR §282.93 states: "Texas has primary responsibility for enforcing its underground storage tank program. However, EPA retains the authority to exercise its inspection and enforcement authorities under sections 9005 and 9006 of subtitle I of RCRA, 42 USC, §6991d and §6991e, as well as under other statutory and regulatory provisions." Regarding SPA 40 CFR §282.93 states: "To retain program approval, Texas must revise its approved program to adopt new changes to the federal subtitle I program which make it more stringent, in accordance with section 9004 of RCRA, 42 USC, §6991c, and 40 CFR part §281, subpart E."

The commission's analysis indicates that Texas Government Code, Chapter 2007, does not apply to this proposed rulemaking because the rulemaking falls under the exclusion listed in Texas Government Code, §2007.003(b)(4): "an action . . . reasonably taken to fulfill an obligation mandated by federal law . . ." This rulemaking is an action reasonably taken to fulfill an obligation mandated by federal law because, as discussed previously, the rulemaking is being proposed to retain independent UST program approval by EPA.

Additionally, this proposed rulemaking falls under the exclusion listed in Texas Government Code, §2007.003(b)(13) because the rulemaking is an action in response to a real and substantial threat to public health and safety, is designed to significantly advance the health and safety purpose, and does not impose a greater burden than is necessary to achieve the health and safety purpose. This rulemaking is an "action taken in response to a real and substantial threat to public health and safety" in that contamination from releases from USTs pose a threat to both soils and groundwater with which the public may come into contact. The proposed rules are "designed to significantly advance the health and safety purpose" by requiring updated technical, operational, and training requirements, the intent of which is to reduce the likelihood of releases of contaminants to the environment. The proposed rules do not impose a greater burden than is necessary to achieve the health and safety purpose because the proposed rules mirror or track as closely as possible the requirements necessary for Texas to retain approval by EPA for an independent UST program.

Nevertheless, the commission performed a further assessment of whether these proposed rules constitute a taking as defined under Texas Government Code, §2007.002(5). The proposed rules implement rule changes to maintain state UST program approval. Promulgation and enforcement of the proposed rules will be neither a statutory nor a constitutional taking of private real property by the commission. Specifically, the proposed rules do not affect a landowner's rights in private real property because this rulemaking does not burden nor restrict or limit the owner's rights to property and reduce real property value by 25% or more beyond that which would otherwise exist in the absence of the proposed rules. There are no burdens imposed on private real property from these proposed rules and the benefits to society are the proposed rules' effect of technical, operational, and training requirements such that occurrences of releases of regulated substances into the environment are reduced. Therefore, the commission has determined that as a whole, this rulemaking will not constitute a taking as that term is defined under Texas Government Code, §2007.002(5).

#### **Consistency with the Coastal Management Program**

The commission reviewed the proposed rulemaking and found the proposal is a rulemaking identified in the Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(2), relating to rules subject to the Coastal Management Program (CMP) and will, therefore, require that goals and policies of the CMP be considered during the

rulemaking process.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

### **Announcement of Hearing**

The commission will hold a public hearing on this proposal in Austin on January 9, 2018, at 2:00 p.m. in Building E, Conference Room 201S (Agenda Room), at the commission's central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-RELAY-TX (TDD). Requests should be made as far in advance as possible.

### **Submittal of Comments**

Written comments may be submitted to Patricia Durón, MC 205, Office of Legal

Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. Electronic comments may be submitted at: <http://www1.tceq.texas.gov/rules/ecomments/>. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2016-019-334-CE. The comment period closes on January 9, 2018. Copies of the proposed rulemaking can be obtained from the commission's website at [http://www.tceq.texas.gov/rules/propose\\_adopt.html](http://www.tceq.texas.gov/rules/propose_adopt.html). For further information, please contact Cynthia Gandee, Program Support Section, at (512) 239-7025.

**SUBCHAPTER A: GENERAL PROVISIONS**  
**§§334.2, 334.4, 334.6, 334.7, 334.10, 334.19**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule; TWC, §26.011, which requires the commission to control the quality of water by rule; TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding underground and aboveground storage tanks; and TWC, §26.3574(b-1), which requires the commission to set the amount of the petroleum products delivery fee.

The United States Environmental Protection Agency (EPA) has amended the rules pertaining to underground storage tank technical requirements (40 Code of Federal Regulations (CFR) Part 280) and state program approval (40 CFR Part 281), effective October 13, 2015. TWC, §26.357, requires standards and rules concerning underground storage tanks adopted by the commission to be at least as stringent as federal requirements.

The proposed rules implement or track as closely as possible the amended federal rules. The proposed rules reflect the changed law of this state regarding petroleum products delivery fee made in House Bill (HB) 2694, 82nd Texas Legislature, 2011, in particular changes made to TWC, §26.3574, which have previously been implemented.

### **§334.2. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise.

(1) Abandonment in-place--A method of permanent removal of an underground storage tank from service where the tank is left in the ground after appropriate preparation and filling with an acceptable solid inert material in accordance with the requirements of §334.55 of this title (relating to Permanent Removal from Service).

(2) Abatement--The process of reducing in sufficient degree or intensity the source of the release or impacted area, and potential fire, explosion, or vapor hazards, such that immediate threats to human health no longer exist. This includes the removal, as necessary, of all regulated substances from any confirmed or suspected release source (including associated aboveground or underground tanks,



individual tank compartments, or associated piping) and the removal of phase-separated regulated substances from the impacted area.

(3) Aboveground release--Any release to the surface of the land or to surface water, including, but not limited to, releases from the aboveground portion of an underground storage tank (UST) system and releases associated with overfills and transfer operations during the dispensing, delivering, or removal of regulated substances into or out of a UST system.

(4) Aboveground storage tank (AST)--A non-vehicular device[,] (including any associated piping)[,] that is made of non-earthen materials; located on or above the surface of the ground, or on or above the surface of the floor of a structure below ground, such as mineworking, basement, or vault; and designed to contain an accumulation of petroleum products.

[(5) ACT--A trademark of the former Association for Composite Tanks, now a licensed trademark of the Steel Tank Institute.]

(5) [(6)] Action level--The concentration of constituents of any substance or product listed in §334.1(a)(1) of this title (relating to Purpose and Applicability) in the soil or water at which corrective action will be required.

(6) Airport hydrant system--An underground storage tank system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants (fill stands). The airport hydrant system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, railcar, or other motor fuel carrier.

(7) Allowable cost--As defined by §334.308 of this title (relating to Allowable Costs and Restrictions on Allowable Costs).

(8) American National Standards Institute (ANSI)--A nationally recognized organization which provides certifications and standards for consumer products and services.

(9) American Petroleum Institute (API)--A nationally recognized organization which provides certifications and standards for petroleum equipment and services.

(10) [(8)] Ancillary equipment--Any devices that are used to distribute, meter, or control the flow of petroleum substances or hazardous substances into or out of an underground storage tank [(UST)], including, but not limited to, piping, fittings, flanges, valves, and pumps.

[9) ANSI--American National Standards Institute, a nationally recognized organization which provides certifications and standards for consumer products and services.]

[(10) API--American Petroleum Institute, a nationally recognized organization which provides certifications and standards for petroleum equipment and services.]

(11) Appropriate regional office--The agency's regional field office which has jurisdiction for conducting authorized agency regulatory activities in the area where a particular underground storage tank system or aboveground storage tank system is located.

(12) Association for Composite Tanks (ACT)--A trademark of the former Association for Composite Tanks, now a licensed trademark of the Steel Tank Institute.

(13) [(12)] ASTM International (formerly known as American Society of Testing and Materials)--A [American Society of Testing and Materials, a] nationally recognized organization which provides certifications and standards for products and services.

(14) [(13)] Backfill--The volume of materials or soils surrounding the underground storage tank bounded by the ground surface, walls, and floor of the tank pit.

(15) [(14)] Below-ground release--Any release to the subsurface of the land or to groundwater, including, but not limited to, releases from the below-ground portions of an underground storage tank (UST) system and releases associated with overfills and transfer operations during the dispensing, delivering, or removal of regulated substances into or out of a UST system.

(16) [(15)] Beneath the surface of the ground--Beneath the ground surface or otherwise covered with material [materials so that visual inspection is precluded].

(17) [(16)] Cathodic protection--A technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell, normally by means of either the attachment of galvanic anodes or the application of impressed current.

[(17) CERCLA--The federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.]

(18) Change-in-service--A method of permanent removal from service involving the permanent conversion of a regulated underground storage tank to a tank which is not regulated under this chapter, where all regulated substances are properly removed by emptying and cleaning, and the tank is left in the ground for the storage of materials other than regulated substances.

(19) Closure letter--A letter issued by the agency which states that, based on the information available, the agency agrees that corrective action has been completed for the referenced release in accordance with agency requirements.

(20) Commingled--A combination or mixture of a petroleum product and a substance other than a petroleum product (excluding soil and/or water).

(21) Common carrier--With respect to delivery prohibitions, a person (as defined in this section) who physically delivers a regulated substance into an underground storage tank directly from a cargo tank which is affixed or mounted to a self-propelled, towable, or pushable vehicle (e.g., wagon, truck, trailer, railcar, aircraft, boat, or barge).

(22) Composite tank--A single-wall or double-wall steel tank, to which a fiberglass-reinforced plastic laminate or cladding has been factory-applied to the external surface of the outer tank wall.

(23) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)--The federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

(24) [(23)] Consumptive use--[(With respect to heating oil)], the utilization and consumption of heating oil on the premises where stored.

(25) Containment sump--A liquid tight container that protects the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of tank (tank top or submersible turbine pump sump), underneath the dispenser (under dispenser containment sump), or at other points in the piping run (transition or intermediate sump).

(26) [(24)] Corporate fiduciary [Fiduciary]--An entity chartered by the Texas Department of Banking [Banking Department of Texas], the Texas Department of Savings and Mortgage Lending [Savings and Loan Department of Texas], or the United States Office of the Comptroller of the Currency [comptroller of the currency, or the director of the United States Office of Thrift Supervision] that acts as a receiver,

conservator, guardian, executor, administrator, trustee, or fiduciary of real or personal property.

(27) [(25)] Corrective action--Any assessment, monitoring, and remedial activities undertaken to investigate the extent of, and to remediate, contamination.

(28) [(26)] Corrective action plan (or remedial action plan)--A detailed plan developed to address site remediation of soil, groundwater, or surface water contamination that provides for required protection of human health, safety, and the environment. The selection of the most effective and efficient remedial method will be dictated by the nature and location of the release, the site soils, hydrogeological conditions, and the required degree of remediation. The remedial method selection should take into consideration such factors as cost, time, and state compliance requirements with each method. The title of any report which contains a corrective action plan must include the designation "remedial action plan."

(29) [(27)] Corrosion specialist--A person who, by reason of a thorough knowledge of the physical sciences and the principles [principals] of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks, and who is either:

(A) certified as a corrosion specialist or a cathodic protection specialist by NACE International; or

(B) licensed as a professional engineer by the Texas Board of Professional Engineers in a branch of engineering that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

(30) [(28)] Corrosion technician--A person who can demonstrate an understanding of the principles [principals] of soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements related to corrosion protection and control on buried or submerged metal tanks and metal piping systems; who is qualified by appropriate training and experience to engage in the practice of inspection and testing for corrosion protection and control on such systems, including the inspection and testing of all common types of cathodic protection systems; and who is either:

(A) certified by NACE International as a corrosion technician, corrosion technologist, or senior corrosion technologist;



(B) employed under the direct supervision of a corrosion specialist (as defined in this section), where the corrosion specialist maintains responsible control and oversight over all corrosion testing and inspection activities; or

(C) certified as a cathodic protection tester, in a manner satisfactory to the agency, by either NACE International or the Steel Tank Institute [(STD)].

(31) [(29)] Date installation is complete--The date any regulated substance is initially placed in an underground storage tank or the date any petroleum product is initially placed in an aboveground storage tank.

(32) [(30)] Dielectric material--A material that does not conduct direct electrical current, as related to coatings, bushings, and other equipment and materials used with underground storage tank systems.

(33) Dispenser--Equipment located aboveground that dispenses regulated substances from the underground storage tank system.

(34) [(31)] Electrical equipment--Underground equipment which contains dielectric fluid which is necessary for the operation of equipment such as transformers and buried electrical cable.

(35) [(32)] Emergency generator--A standby electrical generating system powered by an internal combustion engine (including a turbine), where such system is designed to supply temporary electrical service only when service from the normal or primary electrical source is disrupted. Such systems include, but are not necessarily limited to, those providing emergency electrical service for hospitals, life support systems, and other medical service facilities; telephone and electrical utilities; heating, lighting, ventilation, security, elevator, fire control, and other essential building operations systems; uninterruptible power systems; essential air conditioning and refrigeration; and motors, machinery, and controls used for other essential or critical purposes.

(36) [(33)] Excavation zone--The space containing the underground storage tank (UST) system and backfill material, which is bounded by the ground surface and the walls and floor of the pit and trenches into which the UST system is placed at the time of installation.

(37) [(34)] Existing underground storage tank (UST) system--A UST system which is used or designed to contain an accumulation of regulated substances for which installation either had commenced prior to December 22, 1988, or had been completed on or prior to December 22, 1988. Installation will be considered to have commenced if the owner or operator had obtained all federal, state, and local

approvals or permits necessary to begin physical construction at the site or installation of the tank system, and if either a continuous on-site physical construction or installation program had begun or the owner or operator had entered into contractual obligations (which could not be canceled or modified without substantial loss) which required that the physical construction at the site or installation of the tank system was to be completed within a reasonable time.

(38) [(35)] External release detection--A method of release detection which includes equipment or procedures designed to effectively monitor or measure for the presence of regulated substances in the excavation zone, soil, or other media outside of a single-wall or double-wall underground storage tank system.

(39) [(36)] Facility--The site, tract, or other defined area where one or more underground storage tank systems or one or more aboveground storage tank systems are located.

(40) [(37)] Farm--A tract or tracts of land (including all associated structures and improvements) which are principally devoted to the raising of agricultural or other types of crops, domestic or other types of animals, or fish for the production of food, fiber, or other products or for other useful purposes, including fish hatcheries, rangeland, and plant nurseries with growing operations, but not

including timber-growing land and operations dedicated primarily to recreational, aesthetic, or other non-agricultural activities (e.g., golf courses and parks).

(41) [(38)] Farm tank--A tank located on a farm where the stored regulated substance is or will be utilized directly in the farm activities.

(42) [(39)] Field-constructed tank--A tank constructed in the field. For example, a tank constructed of concrete that is poured in the field or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed [which is not factory-assembled, and which is principally constructed, fabricated, or assembled at the same facility where the tank is subsequently placed into service].

(43) [(40)] Flow-through process tank--A tank through which regulated substances flow in a steady, variable, recurring, or intermittent manner during, and as an integral part of, a production process (such as petroleum refining, chemical production, and industrial manufacturing), but specifically excluding any tank used for the static storage of regulated substances prior to their introduction into the production process and any tank used for the static storage of regulated substances which are products or by-products of the production process.

(44) [(41)] Free product ([or free-product] or non-aqueous phase liquid)--A regulated substance in its free-flowing non-aqueous liquid phase at standard

conditions of temperature and pressure (i.e., that portion of the product not dissolved in water or adhering to soil).

(45) [(42)] Gathering lines--Any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operation.

(46) [(43)] Hazardous substance--Any substance defined or listed in the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [(CERCLA)], §101(14) (42 United States Code (USC), §§9601, *et seq.*), and which is not regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C (42 USC [United States Code], §§6921, *et seq.*).

(47) [(44)] Hazardous substance underground storage tank (UST) system-- A UST system that contains an accumulation of either a hazardous substance, a mixture of two or more hazardous substances, or a mixture of one or more petroleum substances with one or more hazardous substances, and which does not meet the definition of a petroleum UST system in this section.

(48) [(45)] Heating oil--A petroleum substance which is typically used in the operation of heating, boiler, or furnace equipment and which either is one of the following seven technical grades of fuel oil: Number 1, Number 2, Number 4-light,

Number 4-heavy, Number 5-light, Number 5-heavy, and Number 6; is a residual fuel oil derivative of the refining process (such as Navy Special and Bunker C residual fuel oils); or is another fuel (such as kerosene or diesel) used for heating purposes as a substitute for one of the fuel oils or residual fuel oil derivatives listed in this paragraph.

(49) [(46)] Hydraulic fluid--Any regulated substance that is normally used in a hydraulic lift system.

(50) [(47)] Hydraulic lift tank--A tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air and hydraulic fluid to operate lifts, elevators, or other similar devices.

(51) [(48)] Impressed current system--A method of cathodic protection where a rectifier is used to convert alternating current to direct current, where the current then flows in a controlled electrically connected circuit to non-sacrificial anodes, then through the surrounding soil or backfill to the protected metallic structure or component, and back to the rectifier.

(52) [(49)] In operation--The description of an in-service underground storage tank which is currently being used on a regular basis for its intended purpose.

(53) [(50)] In service--The status of an underground storage tank (UST) beginning at the time that regulated substances are first placed into the tank and continuing until the tank is permanently removed from service by means of either removal from the ground, abandonment in-place, or change-in-service. An in-service UST may or may not contain regulated substances, and may be either in operation or out of operation at any specific time.

(54) [(51)] Installer--A person who participates in or supervises the installation, repair, or removal of underground storage tanks.

(55) [(52)] Inventory control--Techniques used to identify a loss of product that are based on volumetric measurements in the tank and reconciliation of those measurements with product delivery and withdrawal records.

(56) [(53)] Jacketed tank--A factory-constructed tank consisting of a single-wall or double-wall steel internal (or primary) tank that is completely enclosed in an external secondary-containment jacket made of noncorrodible material, and which is designed so that releases of stored substances from the internal tank can be contained and monitored within a liquid-tight interstitial space between the internal tank and the external jacket.

(57) [(54)] Lender--A state or national bank; a state or federal savings bank; a credit union; a state or federal savings and loan association; a state or federal government agency that customarily provides financing; or an entity that is registered with the Office of Consumer Credit Commissioner under Chapter 7, Title 79, Revised Statutes (Texas Civil Statutes, Article 5069-7.01, *et seq.*) if the entity is regularly engaged in the business of extending credit and if extending credit represents the majority of the entity's total business activity.

(58) [(55)] Liquid trap--A collection device (such as a sump, well cellar, and other trap) which is used in association with oil and gas production, gathering, and extraction operations (including gas production plants) for the purpose of collecting oil, water, and other liquids, and which either may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.

(59) [(56)] Leaking petroleum storage tank (LPST) site--A site at which a confirmed release of a petroleum substance from an underground storage tank or aboveground storage tank has occurred. Petroleum substance contamination which results from multiple sources may be deemed as one LPST site by the agency.



(60) [(57)] Maintenance--The normal and routine operational upkeep of underground storage tank systems necessary for the prevention of releases of stored regulated substances.

(61) [(58)] Monitoring well--An artificial excavation constructed to measure or monitor the quantity or movement of substances, elements, chemicals, or fluids below the surface of the ground. The term does not include any monitoring well which is used in conjunction with the production of oil, gas, or any other minerals.

(62) [(59)] Motor fuel--A complex blend of hydrocarbons [petroleum substance which is] typically used for the operation of a motor engine, such as [internal combustion engines (including stationary engines and engines used in motor vehicles, aircraft, and marine vessels),] and which is one of the following types of fuels: motor gasoline, aviation gasoline, Number 1 or Number 2 diesel fuel, or any blend containing one or more of these substances (for example, motor gasoline blended with alcohol). [Number 1 diesel fuel, Number 2 diesel fuel, biodiesel blended with Number 1 or Number 2 diesel, gasohol or other alcohol blended fuels.]

(63) [(60)] NACE International (NACE) (formerly National Association of Corrosion Engineers)-- A [NACE International (formerly National Association of Corrosion Engineers), a] nationally recognized organization which provides certifications and standards for corrosion protection services.

(64) National Fire Protection Association (NFPA)--A nationally recognized organization which provides certifications and standards for fire protection equipment and services.

(65) New dispenser--A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an underground storage tank facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are underneath the dispenser and connect the dispenser to the underground piping.

(66) [(61)] New underground storage tank (UST) system--A UST system which is used or designed to contain an accumulation of regulated substances for which installation commenced after December 22, 1988, [;] or an underground storage system which is converted from the storage of materials other than regulated substances to the storage of regulated substances after December 22, 1988.

[(62) NFPA--National Fire Protection Association, a nationally recognized organization which provides certifications and standards for fire protection equipment and services.]

(67) [(63)] Non-aqueous phase liquid (NAPL)--See "Free product (or non-aqueous phase liquid)" as defined in this section.

(68) [(64)] Non-commercial purposes--[(With respect to motor fuel, )] all purposes except resale.

(69) [(65)] Noncorrodible material--A material used in the construction, maintenance, or upgrading of any component of an underground storage tank (UST) system which is designed to retain its physical and chemical properties without significant deterioration or failure for the operational life of the UST system when placed in contact with (and subjected to the resulting electrical and chemical forces associated with) any surrounding soil, backfill, or groundwater, any connected components constructed of dissimilar material, or the stored regulated substance.

(70) [(66)] Observation well--A monitoring well or other vertical tubular structure which is constructed, installed, or placed within any portion of an underground storage tank excavation zone (including the tank hole and piping trench), and which is designed or used for the observation or monitoring of groundwater, or for the observation, monitoring, recovery, or withdrawal of either released regulated substances (in liquid or vapor phase) or groundwater contaminated by such released regulated substances.

(71) [(67)] Occurrence--An incident, including continuous or repeated exposure to conditions, which results in a release from an underground storage tank or aboveground storage tank or tank system.

(72) [(68)] On the premises where stored--[(With respect to heating oil, ] refers to underground storage tank systems located [the consumptive use of heating oil] on the same property [or site] where the stored heating oil is used [stored].

(73) [(69)] Operational life--The actual or anticipated service life of an underground storage tank system, which begins when regulated substances are first placed into the tank system and which continues until the tank system is permanently removed from service by means of either removal from the ground, abandonment in-place, or change-in-service.

(74) [(70)] Operator--Any person in day-to-day control of, and having responsibility for, the daily operation of the underground storage tank system or the aboveground storage tank system, as applicable.

(75) [(71)] Out of operation--The description of an in-service underground storage tank which is not currently being used on a regular basis for its intended purpose.

(76) [(72)] Overfill--A release that occurs when an underground storage tank system is filled beyond its capacity, thereby resulting in a discharge of a regulated substance to the surface or subsurface environment.

(77) [(73)] Owner--Any person who holds legal possession or ownership of an interest in an underground storage tank (UST) system or an aboveground storage tank (AST). For the purposes of this chapter, if the actual ownership of a UST system or an AST is uncertain, unknown, or in dispute, the fee simple owner of the surface estate of the tract on which the UST system or the AST is located is considered the UST system or AST owner unless that person can demonstrate by appropriate documentation, including a deed reservation, invoice, bill of sale, or by other legally acceptable means that the UST system or AST is owned by another person. A person who has registered as an owner of a UST system or AST with the commission under §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems) (or a preceding rule section concerning tank registration) after September 1, 1987, shall be considered the UST system owner and/or AST owner until such time as documentation demonstrates to the executive director's satisfaction that the legal interest in the UST system or AST was transferred to a different person subsequent to the date of the tank registration. This definition is subject to the limitations found in Texas Water Code (TWC), §26.3514, Limits on Liability of Lender;

TWC, §26.3515, Limits on Liability of Corporate Fiduciary; and TWC, §26.3516  
[§25.3516], Limits on Liability of Taxing Unit.

[(74) PEI--Petroleum Equipment Institute, a nationally recognized organization which provides certifications and standards for petroleum equipment and services.]

(78) [(75)] Permanent removal from service--The termination of the use and the operational life of an underground storage tank by means of either removal from the ground, abandonment in-place, or change-in-service.

(79) [(76)] Person--As defined in §3.2 of this title (relating to Definitions).  
[An individual, trust, firm, joint-stock company, corporation, government corporation, partnership, association, state, municipality, commission, political subdivision of a state, an interstate body, a consortium, joint venture, commercial entity, or the United States government.]

(80) Petroleum Equipment Institute (PEI)--A nationally recognized organization which provides certifications and standards for petroleum equipment and services.

(81) [(77)] Petroleum marketing facilities--All facilities at which a petroleum substance is produced or refined and all facilities from which a petroleum substance is sold or transferred to other petroleum substance marketers or to the public.

(82) [(78)] Petroleum marketing firms--All firms owning petroleum marketing facilities. Firms owning other types of facilities with underground storage tanks as well as petroleum marketing facilities are considered to be petroleum marketing firms.

(83) [(79)] Petroleum product--A petroleum substance obtained from distilling and processing crude oil that is liquid at standard conditions of temperature and pressure, and that is capable of being used as a fuel for the propulsion of a motor vehicle or aircraft, including, but not limited to, motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, Number 1 and Number 2 diesel, and biodiesel blended with Number 1 or Number 2 diesel. The term does not include naphtha-type jet fuel, kerosene-type jet fuel, or a petroleum product destined for use in chemical manufacturing or feedstock of that manufacturing.

(84) [(80)] Petroleum storage tank--

(A) Any one or combination of aboveground storage tanks that contain petroleum products and that are regulated by the commission; or

(B) Any one or combination of underground storage tanks and all connecting underground pipes that contain petroleum products and that are regulated by the commission.

(85) [(81)] Petroleum substance--A crude oil or any refined or unrefined fraction or derivative of crude oil which is liquid at standard conditions of temperature and pressure (except for any substance regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C (42 United States Code, §§6921, *et seq.*)). For the purposes of this chapter, a petroleum substance is limited to one or a combination of the substances or mixtures in the following list:

(A) basic petroleum substances[--] (crude oils, crude oil fractions, petroleum feedstocks, and petroleum fractions);

(B) motor fuels[--] (see definition for "Motor fuel" in this section);

(C) aviation gasolines[--] (e.g., Grade 80, Grade 100, and Grade 100-LL);



(D) aviation jet fuels[---] (e.g., Jet A, Jet A-1, Jet B, JP-4, JP-5, and JP-8);

(E) distillate fuel oils[---] (e.g., Number 1-D, Number 1, Number 2-D, and Number 2);

(F) residual fuel oils[---] (e.g., Number 4-D, Number 4-light, Number 4, Number 5-light, Number 5-heavy, and Number 6);

(G) gas-turbine fuel oils[---] (e.g., Grade Q[O]-GT, Grade 1-GT, Grade 2-GT, Grade 3-GT, and Grade 4-GT);

(H) illuminating oils[---] (e.g., kerosene, mineral seal oil, long-time burning oils, 300 oil, and mineral colza oil);

(I) solvents[---] (e.g., Stoddard solvent, petroleum spirits, mineral spirits, petroleum ether, varnish makers' and painters' naphthas, petroleum extender oils, and commercial hexane);

(J) lubricants[---] (automotive and industrial lubricants);

(K) building materials[---] (e.g., liquid asphalt and dust-laying oils);

(L) insulating and waterproofing materials[--] (e.g., transformer oils and cable oils); or

(M) used oils[--] (see definition for "Used oil" in this section).

(86) [(82)] Petroleum underground storage tank (UST) system--A UST system that contains, has contained, or will contain a petroleum substance (as defined in this section), a mixture of two or more petroleum substances, or a mixture of one or more petroleum substances with very small amounts of one or more hazardous substances. In order for a UST system containing a mixture of petroleum substances with small amounts of hazardous substances to be classified as a petroleum UST system, the hazardous substance must be at such a dilute concentration that the overall release detectability, effectiveness of corrective action, and toxicity of the basic petroleum substance is not altered to any significant degree.

(87) [(83)] Pipeline facilities (including gathering lines)--New and existing pipeline rights-of-way, including any equipment, facilities, or buildings therein which are used in the transportation or associated treatment (during transportation) of gas or hazardous liquids (which include petroleum and other liquids as designated by the Secretary of the United States Department of Transportation), and which are regulated under the federal Natural Gas Pipeline Safety Act of 1968 (49 United States Code (USC)

App. 1671, *et seq.*); the federal Hazardous Liquid Pipeline Safety Act of 1979 (49 USC [United States Code] App. 2001, *et seq.*); or (for intrastate pipeline facilities) the Texas Natural Resources Code, Chapter [Chapters] 111 or Chapter 117, or Texas Civil Statutes, Articles 6053-1 and 6053-2.

(88) [(84)] Piping--All underground pipes in an underground storage tank system, including valves, elbows, joints, flanges, flexible connectors, and other fittings attached to a tank system through which regulated substances flow or in which regulated substances are contained or stored.

(89) [(85)] Piping trench--The portion of the excavation zone at an underground storage tank facility which contains the piping system and associated backfill materials.

(90) [(86)] Pressurized piping--Product or delivery piping in an underground storage tank system which typically operates at greater than atmospheric pressure.

(91) [(87)] Professional engineer--A person who is currently duly licensed by the Texas Board of Professional Engineers to engage in the practice of engineering in the State of Texas.

(92) [(88)] Professional geoscientist--A person who is currently duly licensed by the Texas Board of Professional Geoscientists to engage in the public practice of geoscience in the State of Texas.

(93) [(89)] Qualified personnel--Persons who possess the appropriate competence, skills, and ability (as demonstrated by sufficient education, training, experience, and/or, when applicable, any required certification or licensing) to perform a specific activity in a timely and complete manner consistent with the applicable regulatory requirements and generally accepted industry standards for such activity.

(94) [(90)] Radioactive materials--Radioactive substances or radioactive waste materials (e.g., high-level radioactive wastes and low-level radioactive cooling waters) which are classified as hazardous substances under the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [(CERCLA)], §101(14), 42 United States Code (USC), §§9601, *et seq.*, except for radioactive materials regulated as a hazardous waste under the federal Solid Waste Disposal Act, Subtitle C, 42 USC [United States Code], §§6921, *et seq.*

(95) [(91)] Regulated substance--An element, compound, mixture, solution, or substance that, when released into the environment, may present substantial danger to the public health, welfare, or the environment. For the purposes of this chapter, a regulated substance is limited to any hazardous substance (as

defined in this section), any petroleum substance (as defined in this section), any mixture of two or more hazardous substances and/or petroleum substances, and any other substance designated by the commission to be regulated under the provisions of this chapter.

(96) [(92)] Release--Any spilling including overfills, leaking, emitting, discharging, escaping, leaching, or disposing from an underground storage tank or aboveground storage tank into groundwater, surface water, or subsurface soils. In this definition, the term "subsurface soils" does not include backfill or native material in the tank hole that is placed immediately adjacent to or surrounding an underground storage tank system when the system is installed or the system's individual components are replaced unless petroleum free product is present in the backfill or native material.

(97) [(93)] Release detection--The process of determining whether a release of a regulated substance is occurring, or has occurred, from an underground storage tank system.

(98) [(94)] Repair--The restoration, renovation, or mending of a damaged or malfunctioning tank or underground storage tank system component.

(99) Replaced--

(A) For a tank - to remove a tank and install another tank.

(B) For piping - to remove 35% or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.

(100) [(95)] Residential tank--A tank located on property used primarily for dwelling purposes.

(101) [(96)] Retail service station--A facility where flammable liquids used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles and where such dispensing is an act of retail sale.

(102) [(97)] Risk-based corrective action--Site assessment or site remediation, the timing, type, and degree of which is determined according to case-by-case consideration of actual or potential risk to public health from environmental exposure to a regulated substance released from a leaking underground storage tank or aboveground storage tank.

(103) [(98)] Secondary containment--A containment method by which a secondary wall, jacket, or barrier is installed around the primary storage vessel (e.g.,

tank or piping) in a manner designed to prevent a release from migrating beyond the secondary wall or barrier before the release can be detected. Secondary containment systems include, but are not limited to: double-wall tank and/or piping systems, impervious liners, jackets, containment boots, sumps, or vaults surrounding a primary (single-wall) tank and/or piping system.

(104) [(99)] Septic tank--As defined in §285.2 of this title (relating to Definitions) [A water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer].

(105) [(100)] Spill--A release of a regulated substance which results during the filling, placement, or transfer of regulated substances into an underground storage tank (UST) or an aboveground storage tank (AST), or during the transfer or removal of regulated substances from a UST system or an AST.

(106) [(101)] Standard conditions of temperature and pressure--A temperature of 60 degrees Fahrenheit and an atmospheric pressure of 14.7 pounds per square inch absolute.

(107) [(102)] Steel Tank Institute (STI)--A [STI--Steel Tank Institute, a] nationally recognized organization which provides certifications and standards for steel tanks.

(108) [(103)] Stormwater or wastewater collection system--The piping, pumps, conduits, and any other equipment necessary to collect and transport surface water runoff resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of stormwater and wastewater does not include treatment except where incidental to conveyance [to and from retention areas and into natural or man-made drainage channels].

(109) [(104)] Suction piping--Product or delivery piping in an underground storage tank system which typically operates below atmospheric pressure.

(110) [(105)] Sump--Any man-made pit or reservoir that meets the definition of a tank in this section (including any connected troughs or trenches) that serves to collect and temporarily store regulated substances.

(111) [(106)] Surface impoundment--A natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (but possibly lined with man-made materials) that is designed to hold an accumulation of regulated substances.



(112) [(107)] Tank--A stationary device (generally exclusive of any associated ancillary equipment) designed or used to contain an accumulation of regulated substances which is constructed of a non-earthen material (e.g., concrete, steel, or plastic) that provides structural support.

(113) [(108)] Tank hole--The portion of the excavation zone at an underground storage tank facility which contains the tanks and associated backfill materials.

(114) [(109)] Tank system--An underground storage tank system.

(115) [(110)] Temporary removal from service--The procedure by which an underground storage tank system may be temporarily taken out of operation without being permanently removed from service.

(116) [(111)] Tightness test (or tightness testing)--A procedure for testing and analyzing a tank or piping system to determine whether the system(s) is capable of preventing the inadvertent release of a stored substance into the environment.

(117) Under-dispenser containment (UDC)--Containment underneath a dispenser system designed to prevent leaks from the dispenser and piping within or above the UDC from reaching soil or groundwater.

[(112) UL--Underwriters Laboratories, Inc., a nationally recognized organization which provides certifications and standards for consumer products and services.]

(118) [(113)] Underground area--An underground room, basement, cellar, shaft, or vault, which provides enough space for physical inspection of the exterior of a tank or tank system situated on or above the surface of the floor.

(119) [(114)] Underground storage tank (UST)--Any one or combination of underground tanks and any connecting underground pipes used to contain an accumulation of regulated substances, the volume of which, including the volume of the connecting underground pipes, is 10% or more beneath the surface of the ground or otherwise covered with material so that visual inspection is precluded.

(120) [(115)] Underground storage tank (UST) system--An underground storage tank, all associated underground piping and underground ancillary equipment, spill and overflow prevention equipment, release detection equipment, corrosion protection system, secondary containment equipment (as applicable), and all other related systems and equipment.

(121) Underwriters Laboratories, Inc. (UL)--A nationally recognized organization which provides certifications and standards for consumer products and services.

(122) [(116)] Unsaturated zone--The subsurface zone containing water under pressure less than that of the atmosphere (including water held by capillary forces within the soil) and containing air or gases generally under atmospheric pressure. This zone is bounded at the top by the ground surface and at the bottom by the upper surface of the zone of saturation (i.e., the water table).

(123) [(117)] Upgrading--The addition, improvement, retrofitting, or renovation of an existing underground storage tank system with equipment or components as required to meet the corrosion protection, spill and overflow prevention, and release detection requirements of this chapter.

(124) [(118)] Used oil--Any oil [or similar petroleum substance] that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities [used for its designed or intended purposes, and contaminated as a result of such use by physical or chemical impurities; and including spent motor vehicle and aircraft lubricating oils (e.g., car and truck engine oil, transmission fluid, and brake fluid), spent industrial oils (e.g.,

compressor, turbine, bearing, hydraulic, metalworking, gear, electrical, and refrigerator oils), and spent industrial process oils].

[(119) UST--An underground storage tank (as defined in this section).]

[(120) UST system--An underground storage tank system (as defined in this section).]

(125) [(121)] Vent lines--All pipes including valves, elbows, joints, flanges, flexible connectors, and other fittings attached to a tank system, which are intended to convey the vapors emitted from a regulated substance stored in an underground storage tank to the atmosphere.

[(122) Wastewater collection system--The piping, pumps, conduits, and any other equipment necessary to collect and transport domestic, commercial, or industrial wastewater to and from any facilities or areas where treatment of such wastewater is designated to occur.]

(126) [(123)] Wastewater treatment tank--A tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

**§334.4. Exclusions for Underground Storage Tanks (USTs) and UST Systems.**

(a) Complete exclusions. In addition to the tanks exempted from regulation under §334.3 of this title (relating to Exemptions for Underground Storage Tanks (USTs) and UST Systems), the following USTs are completely excluded from regulation under this chapter:

(1) any UST system containing a hazardous listed waste or identified under the federal Solid Waste Disposal Act, Subtitle C[,] (42 United States Code (USC), §6921, *et seq.*), or containing a mixture of such hazardous waste and other regulated substances, where such system is already subject to regulation under the federal Solid Waste Disposal Act, Subtitle C;

(2) any wastewater treatment tank (including an oil-water separator and any pretreatment facility), which is an integral part of a wastewater treatment facility which is either:

(A) permitted under the federal Clean Water Act, either §307(b) or §402 [or §307(b),] (33 USC, [United States Code] §1251, *et seq.*); or

(B) permitted pursuant to the Texas Water Code (TWC), Chapter 26;

(3) sumps which have a capacity of less than 110 gallons;

(4) emergency spill protection or emergency overflow containment tanks, including certain sumps and secondary containment systems, which are used solely for the temporary storage or containment of regulated substances resulting from a leak, spill, overflow, or other unplanned release, and where the regulated substances are routinely removed within 48 hours of the discovery of the release; provided that such tanks must be inspected for a release no less than once every month; or

(5) UST systems which during their entire operational life have exclusively contained only regulated substances at such dilute concentrations that any release would not pose any significant threat to human health and safety or the environment.

(b) Partial exclusions. The following USTs are subject to all provisions of this chapter, except for Subchapter C of this chapter (relating to Technical Standards); Subchapter N of this chapter (relating to Operator Training); Chapter 30, Subchapter I of this title (relating to Underground Storage Tank On-Site Supervisor Licensing and Contractor Registration); [,] Chapter 37, Subchapter I of this title (relating to Financial Assurance for Petroleum Underground Storage Tank Systems); [,] and the certification requirements of §334.8 of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems):

(1) any wastewater treatment tank (including oil-water separators), where such tank is not an integral part of a wastewater treatment facility which is either:

(A) permitted under the federal Clean Water Act, either §307(b) or §402 [or §307(b),] (33 USC, [United States Code] §1151, *et seq.*); or

(B) permitted pursuant to the TWC [Texas Water Code], Chapter 26;

(2) any UST system that contains radioactive substances, where such system is regulated by the federal Nuclear Regulatory Commission (or its successor) under the provisions of the Atomic Energy Act of 1954 (42 USC, [United States Code] §2011, *et seq.*);

(3) any UST system that contains fuel used solely to power an emergency electrical generator system at a nuclear power generation system facility regulated by the federal Nuclear Regulatory [Regulation] Commission (or its successor) under the provisions of the Title 10 Code of Federal Regulations, Part 50, Appendix A.

(c) Other exclusion. In addition to the partial exemption for hydraulic lifts covered under §334.3(b) of this title, all other in-ground hydraulic lifts that use a compressed air/hydraulic fluid system and which hold 100 gallons or more of

hydraulic oil are similarly excluded from regulation under this chapter, except that such lifts remain subject to the release reporting and corrective action requirements under Subchapter D of this chapter (relating to Release Reporting and Corrective Action).

(d) Upon request by the agency, the owner and operator of a tank claimed to be excluded under this section must provide appropriate documentation or other information in a timely manner to support that claim.

**§334.6. Construction Notification for Underground Storage Tanks (USTs) and UST Systems.**

(a) General requirements.

(1) Beginning September 1, 1987, any person who intends either to install a new or replacement underground storage tank (UST), to remove an UST from the ground, or to conduct a permanent abandonment in-place of an UST must comply with the notification requirements of this section prior to initiating such activity.

(2) On or after September 29, 1989, any person who intends to perform any construction activity listed in subsection (b)(1) of this section must comply with the notification requirements of this section prior to initiating such activity.



(3) In addition to the construction notification requirements of this section, the owner or operator of an existing or proposed UST system that is located or will be located on [in] the designated recharge [zone] or transition zones or contributing zone within the transition zone of the Edwards Aquifer must also secure the requisite approval from the agency prior to conducting certain regulated UST activities, as prescribed under Chapter 213 of this title (relating to Edwards Aquifer).

(4) Any UST construction activity performed or completed pursuant to a notification submitted under the provisions of this section must meet the applicable technical standards and procedural requirements under Subchapter C of this chapter (relating to Technical Standards).

(5) In situations where a proposed UST construction activity is necessitated by a suspected or confirmed release of regulated substances, or where the activity contributes to or causes such a release, the owner or operator must comply with the release reporting, investigation, and corrective action requirements of Subchapter D of this chapter (relating to Release Reporting and Corrective Action).

(6) Construction notifications required under this section may be provided to the agency's central office in Austin or to the agency's appropriate regional office in the area of the activity, unless otherwise specified in this section. The official

date of notification must be the date on which the notification is first received in an agency office.

(7) Construction notification required under this section must be provided by the owner or operator, or an authorized agent or representative of the owner or operator (e.g., a contractor or consultant who has contracted for such construction activity). Construction notifications filed by unauthorized persons are null and void.

(b) Notification for major construction activities.

(1) Applicable activities.

(A) For the purposes of this section, a major UST construction activity includes any of the following:

(i) installation of new or previously used tank systems at a new facility, and the addition or replacement of tanks at an existing facility;

(ii) removal of existing tank systems from the ground (either temporarily or permanently);

(iii) permanent abandonment in-place or change-in-service of existing tank systems;

(iv) tank repairs, including interior and exterior relining or recoating;

(v) installation of new or replacement piping for existing tanks;

(vi) addition of secondary containment equipment for new or existing tank or piping systems;

(vii) any tank integrity assessment or other activities requiring the entrance of any persons into a tank; [and]

(viii) addition or replacement of any of the following items at existing facilities, when such addition or replacement is necessary for compliance with the minimum upgrading requirements in §334.47(b) of this title (relating to Technical Standards for Existing Underground Storage Tank [UST] Systems):

(I) cathodic protection systems;

(II) release detection systems;

(III) spill and overflow prevention equipment; or

(IV) monitoring well; and [.]

(ix) switching to a regulated substance containing greater than 10% ethanol or greater than 20% biodiesel.

(B) The requirements of this section are not applicable to routine and minor maintenance activities related to the tank and piping systems, such as tightening loose fittings and joints, adjusting and calibrating equipment, conducting routine inspections and tests, and the substitution or in-kind replacement of any obsolete or malfunctioning UST system component for any purpose other than required upgrading.

(C) When a [an] UST system has been taken temporarily out-of-service under §334.54 of this title (relating to Temporary Removal from Service), the owner or operator must first submit a construction notification form before returning the UST system to service.

(2) Filing requirements. Except as provided under subsection (c) of this section, any owner or operator who intends to perform a major UST construction activity as described in paragraph (1) of this subsection must file a written notification with the agency at least 30 days prior to initiating the activity.

(A) Such notification should be submitted on the agency's authorized form, as described in paragraph (6) of this subsection.

(B) When requested by the agency, any person who intends to perform a major UST construction activity must also submit additional supporting information to assure that the construction activity is in compliance with the requirements of this chapter. Supporting information which may be requested by the agency includes, but is not limited to, the following items:

(i) detailed design plans and specifications (drawn to scale);

(ii) installation standards and operating instructions for major system components;

(iii) quality assurance plans;

(iv) compatibility data related to the stored substances and the materials of construction;

(v) specific geological, hydrological, and environmental site information;

(vi) qualifications and experience records of consultants, equipment installers, and contractors;

(vii) formal plan or procedures for tank removals, changes-in-service, and abandonments in-place;

(viii) disposal procedures for removed tanks;

(ix) general contingency plan for release abatement and the clean-up and disposal of any residual regulated substances, contaminated soils, or contaminated water (including wash water, groundwater, or surface water); and

(x) basis and description for any proposed change-in-service.

(C) Between 24 and 72 hours prior to the scheduled time of initiation of the proposed activity, the owner or operator must contact the agency's appropriate regional office in the area of the activity to confirm the time of the initiation of the proposed activity. Any revisions to the proposed construction start date must be in accordance with paragraph (3) of this subsection. This subparagraph does not apply to paragraph (1)(A)(ix) of this subsection.

(3) Rescheduling. If after the submittal of the initial construction notification, the owner or operator determines that a revision to the previously reported scope or start date for the construction is necessary, the owner or operator must immediately report the revised construction information to the commission's appropriate regional office in the area of the activity. This paragraph does not apply to paragraph (1)(A)(ix) of this subsection.

(A) If an earlier start date is proposed, and if this date is less than 30 days from the original notification date, then the owner or operator must comply with the requirements of paragraph (4) of this subsection.

(B) An owner or operator may revise the proposed construction start to a later date as necessary, provided that the agency's appropriate regional office is notified, and provided that original written notifications are properly renewed upon expiration in accordance with paragraph (5) of this subsection.

(4) Waiver requests. Normally a notification period of at least 30 days is required prior to the initiation of any major UST construction activity. However, if after the submittal of the construction notification, the owner or operator has good cause for an accelerated construction schedule, then the owner or operator may request approval of an earlier construction start date. Such request must be made directly to the agency's appropriate regional office in the area of the activity. The regional director (or the director's designated representative) has the authority to approve or deny such requests, and such decision will be based on the following criteria:

(A) good cause shown by the owner or operator for an earlier construction start date; and

(B) the ability of agency personnel to arrange and schedule an adequate inspection of the activity.

(5) Expiration. A written construction notification for a major UST construction activity is valid for only 180 days after the original notification date or 150 days after the originally anticipated construction start date, whichever is earlier. If the proposed construction has not commenced within this period, the original notification will expire. If the owner or operator still plans to perform the construction after the expiration of this period, a new and updated construction notification form must be filed.



(6) Notification form.

(A) Any person who intends to perform a major UST construction activity (as described in paragraph (1) of this subsection) must provide all the applicable construction notification information indicated on the agency's authorized construction notification form.

(B) The construction notification form must be filled out completely and accurately. Upon completion, the form must be dated and signed by the owner, the operator, or the authorized representative of the owner or operator, and must be timely filed in accordance with subsection (a)(6) [(a)(5)] of this section.

(c) Alternative notification procedures.

(1) Only for UST construction activities involving situations described under paragraph (2) of this subsection, the owner or operator may comply with the following alternative notification and reporting procedures in lieu of the normal notification requirements of subsection (b) of this section.

(A) The owner or operator must provide verbal or written notification to the agency as soon as possible prior to initiating the construction

activity. Such notification must be submitted directly to the agency's appropriate regional office in the area of the activity.

(B) After providing the construction notification prescribed under subparagraph (A) of this paragraph, the owner or operator may proceed with the construction activity, as directed by the regional director (or the regional director's designated representative). The owner or operator must maintain detailed records of the construction. No later than 30 days after completion of the construction, the owner or operator must submit to the agency a detailed report describing the activity. If the agency determines that the information in such report is insufficient to assure compliance with the applicable requirements of this chapter, then the owner or operator may be required to submit additional information to demonstrate such compliance.

(2) The alternative notification procedures of paragraph (1) of this subsection may be used only when the following situations occur:

(A) when an owner or operator of an UST can demonstrate that a release or suspected release of a regulated substance has occurred or is likely to occur as a result of the operation of the UST, when such release is considered an immediate threat to human health or safety or the environment, and when the owner or operator

can demonstrate that the expeditious initiation and completion of the proposed construction activity is necessary to prevent or abate such release;

(B) when an out-of-operation UST system is discovered during unrelated construction activities (e.g., the construction of building excavations, streets, highways, utilities, etc.), when the property owner can reasonably demonstrate no prior knowledge of the existence of the tank, when the expeditious removal or abandonment in-place of the tank is considered necessary or advisable for the completion of the unrelated construction activity, and where any delays in completion of the tank removal or abandonment in-place would cause unreasonable financial hardship due to contract schedules and completion times;

(C) when any duly authorized public official (e.g., any federal, state, or local fire or safety officer, health or environmental official, law officer, etc.) orders the immediate removal or repair of all or portions of a [an] UST system which poses an immediate threat to human health, safety, or the environment;

(D) when the activity is necessary to maintain the operational readiness of an emergency generator, as defined by §334.2 of this title (relating to Definitions);

(E) in any other case where the agency determines that compliance with the notification provisions of subsection (b) of this section would be unreasonable

or impractical, or could increase the threat to human health or safety or the environment.

**§334.7. Registration for Underground Storage Tanks (USTs) and UST Systems.**

(a) General provisions.

(1) All underground storage tanks (USTs) in existence on or after September 1, 1987, must be registered with the agency on authorized agency forms in accordance with subsection (e) of this section, except for those tanks which:

(A) are completely exempted or partially exempted from regulation under §334.3(a) or (b) of this title (relating to Exemptions for Underground Storage Tanks (USTs) and UST Systems);

(B) are completely excluded or partially excluded from regulation under §334.4(a) or (c) of this title (relating to Exclusions for Underground Storage Tanks (USTs) and UST Systems);

(C) were properly registered with the agency prior to September 29, 1989, [the effective date of this subchapter] under the provisions of the federal Solid Waste Disposal Act, §9002 (42 United States Code, §§6921, *et seq.*), provided that

the owner or operator must submit notice of all changes and additional information in accordance with the provisions of subsection (d) of this section;

(D) have been permanently removed from usage by either:

(i) were permanently removed from the ground before May 8, 1986; or

(ii) remain in the ground, but were emptied, cleaned, and filled with solid inert materials on or before January 1, 1974, in accordance with accepted industry practices in effect at the time the UST was taken out of operation; or

(E) were out of operation and empty of regulated substances at the time of their discovery, provided that:

(i) the facility owner and operator can reasonably demonstrate no prior knowledge of the existence of the USTs; and

(ii) the USTs are permanently removed from service in accordance with §334.55 of this title (relating to Permanent Removal from Service) no later than September 29, 1990, or within 60 days of their discovery, whichever is later.

(2) The owner and operator of a UST are responsible for compliance with the tank registration requirements of this section. An owner or operator may designate an authorized representative to complete and submit the required registration information. However, the owner and operator remain responsible for compliance with the provisions of this section by such representatives.

(3) All USTs subject to the registration requirements of this section are also subject to the fee provisions of Subchapter B of this chapter (relating to Underground Storage Tank Fees), except where specifically exempted in this chapter. The failure by a tank owner or operator to properly or timely register any tanks does not exempt the owner from such fee assessment and payment provisions.

(4) Proper completion of the tank registration portions of the UST registration and self-certification form will result in the agency's issuance of a UST registration certificate for the tanks at the facility covered by that registration. This certificate is tied to the delivery prohibitions detailed in §334.5(b)(2) of this title (relating to General Prohibitions for Underground Storage Tanks (USTs) and UST Systems).

(b) Existing tanks. Any person who owns a UST that was in existence on September 1, 1987, must register such tank with the agency not later than September 1, 1987, on an authorized agency form, except for those tanks exempted and excluded

under subsection (a)(1)(A) - (D) of this section. Upon November 23, 2000 [the effective date of this subsection], the obligation becomes joint and several with the tank operator as well.

(c) New or replacement tanks. Any person who owns a new or replacement UST that is placed into service on or after September 1, 1987, must register the tank with the agency on an authorized agency form within 30 days after the date any regulated substance is placed into the tank, except for those tanks exempted or excluded under subsection (a)(1)(A) - (D) of this section. Upon November 23, 2000 [the effective date of this subsection], the obligation becomes joint and several with the tank operator as well.

(d) Changes or additional information.

(1) The owner or operator of a UST system must provide written notice to the agency of any changes or additional information concerning such system. Types of changes or additional information subject to this requirement must include, but are not limited to, the following:

(A) change in owner or operator, or change in owner or operator information (e.g., authorized representative, mailing address, and/or telephone number), provided that:

(i) amended registrations of owner or operator information (other than ownership transfers) may be submitted by the owner, operator, or an authorized representative of the owner or operator; and

(ii) amended registrations reflecting UST ownership transfers must be provided by the new UST owner or a legally-authorized representative of the new UST owner (i.e., registrations of ownership transfers submitted by others will be returned and will not be recorded);

(B) change in the operational status of any tank system (e.g., in service, temporarily out-of-service, removed from the ground, permanently abandoned in-place, change-in-service to provide for the storage of a substance other than a regulated substance, or change to exempt or excluded status);

(C) change in the type of stored regulated substance, including switching to a regulated substance containing: [;]

(i) greater than 10% ethanol; or

(ii) greater than 20% biodiesel;



(D) installation of additional tanks and/or ancillary equipment at an existing facility;

(E) change in the type of piping for an existing tank;

(F) the addition of, or a change in the type of, internal or external corrosion protection for the tanks, piping, and/or ancillary equipment;

(G) the addition of, or a change in the type of, spill and overflow prevention equipment for the tanks;

(H) the addition of, or a change in the type of, release detection equipment or methods for the tanks and/or piping;

(I) change in the location of documents and records for the facility;  
and

(J) change in financial assurance information related to the facility as specified in Chapter 37, Subchapter I of this title (relating to Financial Assurance for Petroleum Underground Storage Tank Systems).

(2) Notice of any change or additional information must be submitted on an authorized agency form which has been completed in accordance with subsection (e) of this section. The agency's UST facility number for the facility must be included in the appropriate space on the form.

(3) Notice of any change or additional information must be filed with the agency within 30 days from the date of the occurrence of the change or addition, or within 30 days from the date on which the owner or operator first became aware of the change or addition, as applicable.

(4) However, for the initial filing of the UST registration and self-certification form (which is described in §334.8(c)(4) of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems)) for all regulated UST systems at a facility, all UST owners and operators must complete the "Tank Identification/Description" section of the UST registration portion of the form by the same deadline given in §334.8(c)(4)(A)(vi) of this title. This requirement does not relieve an owner or operator from any other registration requirements under this section.

(e) Required form for providing UST registration information.

(1) Any UST owner or operator required to submit UST registration information under subsections (a) - (d) of this section must provide all the information indicated on the agency's authorized form for each regulated UST. The UST registration information must be provided on the appropriate agency form, as specified in paragraph (6) of this subsection.

(2) The UST registration portion of the form must be filled out completely and accurately. Upon completion, the form must be dated and signed by the owner, or the operator, or an authorized representative of the owner or operator, and must be filed with the agency within the specified time frames.

(3) All UST owners or operators required to submit UST registration information under subsections (a) - (d) of this section must provide the registration information for all USTs located at a particular facility on the same form.

(4) UST owners or operators who own or operate USTs located at more than one facility must complete and file a separate form for each facility where regulated USTs are located.

(5) If additional information, drawings, or other documents are submitted with new or revised registration data, specific facility identification information (including the facility identification number, if known) must be conspicuously

indicated on each document and all such documents must be attached to and filed with the form.

(6) For any UST registration information filed with the agency on or after November 23, 2000 [the effective date of this paragraph], UST owners and operators must provide the required information on an authorized agency UST registration and self-certification form, as prescribed by §334.8(c)(4) [§334.8(c)(3)] of this title.

(7) Owners and operators of petroleum UST systems should also see the financial assurance requirements in §37.870(b) of this title (relating to Reporting, Registration, and Certification).

(f) Inadequate information. When any of the required UST registration information submitted to the agency is determined to be inaccurate, unclear, illegible, incomplete, or otherwise inadequate, the agency may require the owner and/or operator to submit additional information. An owner or operator must submit any such required additional information within 30 days of receipt of such request.

#### **§334.10. Reporting and Recordkeeping.**

(a) Reporting. Owners and operators of underground storage tank (UST) systems must assure that all reporting and filing requirements in this chapter are met, including the following (as applicable):

(1) construction notification, in accordance with §334.6 of this title (relating to Construction Notification for Underground Storage Tanks (USTs) and UST Systems);

(2) application for approval of any proposed UST system on the regulated zones of [in] the Edwards Aquifer [recharge or transition zones], in accordance with §334.6(a)(3) [§334.6(a)(2)] of this title and Chapter 213 of this title (relating to Edwards Aquifer);

(3) registration of UST systems and changes in information, in accordance with §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems);

(4) certification of construction activities, financial assurance, and compliance self-certification in accordance with §334.8 of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems);

(5) request for approval of any variance or alternative procedure, in accordance with §334.43 of this title (relating to Variances and Alternative Procedures);

(6) documentation of release determination or site assessment conducted when a UST system is permanently removed from service, in accordance with §334.55(a)(6) of this title (relating to Permanent Removal from Service);

(7) payment of UST fees, in accordance with Subchapter B of this chapter (relating to Underground Storage Tank Fees);

(8) reports, plans, and certifications related to suspected and confirmed releases of regulated substances, including:

(A) release reports and notifications, in accordance with §334.72 of this title (relating to Reporting of Suspected Releases), §334.75 of this title (relating to Reporting and Cleanup of Surface Spills and Overfills), and §334.76 of this title (relating to Initial Response to Releases);

(B) report and certification of site check methods, in accordance with §334.74(3) [§334.74(c)] of this title (relating to Release Investigation and Confirmation Steps);

(C) initial abatement report, in accordance with §334.77(b) of this title (relating to Initial Abatement Measures and Site Check);

(D) initial site assessment report, in accordance with §334.78(c) [§334.78(b)] of this title (relating to Site Assessment);

(E) non-aqueous phase liquid removal report, in accordance with §334.79(4) [§334.79(d)] of this title (relating to Removal of Non-Aqueous Phase Liquids (NAPLs));

(F) soil and groundwater contamination information, in accordance with §334.80(b) of this title (relating to Investigation for Soil and Groundwater Cleanup);

(G) corrective action plan, in accordance with §334.81 of this title (relating to Corrective Action Plan);

(H) notification of cleanup initiation, in accordance with §334.81(e) of this title;

(I) certification of compliance with corrective action plan, in accordance with §334.81(h) [§334.81(g)] of this title; and

(J) public notices related to corrective action plans, in accordance with §334.82(b) of this title (relating to Public Participation);

(9) notifications and reports relating to financial assurance requirements, in accordance with Chapter 37, Subchapter I of this title (relating to Financial Assurance for Petroleum Underground Storage Tank Systems); and

(10) any other reports, filings, notifications, or other submittals required by this chapter, or otherwise required by the agency to demonstrate compliance with the provisions of this chapter. When agency requirements specify documents that must be prepared by, or prepared under, the supervision of a duly licensed professional engineer, a duly licensed professional geoscientist, or a duly licensed professional surveyor, those documents must be prepared in accordance with all requirements of statute and rule applicable to that respective professional.

(b) Recordkeeping.

(1) General recordkeeping requirements.

(A) Owners and operators of UST systems are responsible for developing and maintaining all records required by the provisions of this chapter.

(B) Except as provided in subparagraphs (C) and (D) of this paragraph, legible copies of all required records pertaining to a UST system must be



maintained in a secure location on the premises of the UST facility, must be immediately accessible for reference and use by the UST system operator, and must be immediately available for inspection upon request by agency personnel.

(C) Except as provided in clause (v) of this subparagraph, in the event that copies of the required records cannot reasonably be maintained on the premises of the UST facility, then such records may be maintained at a readily accessible alternate site, provided that the following conditions are met.

(i) If the UST system is in operation, the records must be readily accessible for reference and use by the UST system operator.

(ii) The records must be readily accessible and available for inspection upon request by agency personnel.

(iii) The owner or operator must provide the following information (in writing) to the agency's central office and to the agency's appropriate regional office:

(I) the specific location where the required records are maintained; and

(II) the name, address, and telephone number of the authorized custodian of such records.

(iv) The filing of the written information required in clause (iii) of this subparagraph must be accomplished no later than October 29, 1989, 30 days after a UST installation or replacement has been completed, or 30 days after the UST records are moved to an alternate site, whichever is later or applicable, as provided in §334.7(d) of this title.

(v) The conditional authorization otherwise allowed under this subparagraph for records maintenance at an alternative, off-premises location is not applicable to the UST delivery certificate (or temporary delivery authorization, if applicable) issued by the agency under §334.8(c) of this title. This UST delivery certificate must be maintained on the premises of all facilities with regulated USTs, must be posted by the UST system operator, and must be visible to the person(s) performing deliveries to the UST system.

(D) For UST systems which have been permanently removed from service in accordance with the applicable provisions of §334.55 of this title, the facility owner may submit the appropriate records required by this chapter to the agency in lieu of maintaining the records on the premises or at an alternative site, provided that the following conditions are met:

(i) the facility is no longer operated in a manner that requires the underground storage of regulated substances, and all UST systems at the facility have been permanently removed from service;

(ii) the facility owner must provide written justification adequate to explain why such records cannot be maintained on the premises of the UST facility or at a readily accessible alternative site; and

(iii) the records must be submitted at one time in one package for each UST facility, and the records must be appropriately labeled with the UST facility location information and the UST facility identification number.

(2) Required records and documents. Owners and operators of UST systems must assure that all recordkeeping requirements in this chapter are met, including the following records and documentation (as applicable).

(A) Legible copies of the following general records must be maintained for the operational life of the UST system:

(i) original and amended registration documents, in accordance with §334.7 of this title;

(ii) original and amended certifications for UST installations and financial assurance, in accordance with §334.8 of this title;

(iii) notification to UST purchaser, in accordance with §334.9 of this title (relating to Seller's Disclosure).

(B) Legible copies of applicable records and documents related to technical standards for UST systems must be maintained in accordance with the following provisions:

(i) application documents and the agency's approval letter for any variances or alternative procedures, in accordance with §334.43 of this title;

(ii) records demonstrating compliance with technical standards and installation standards for new UST systems, in accordance with §334.45(f) of this title (relating to Technical Standards for New Underground Storage Tank Systems) and §334.46(i) of this title (relating to Installation Standards for New Underground Storage Tank Systems);

(iii) records demonstrating compliance with the minimum upgrading requirements for existing UST systems, in accordance with §334.47(e)

[§334.47(d)] of this title (relating to Technical Standards for Existing Underground Storage Tank Systems);

(iv) operation and maintenance records (including periodic testing and walkthrough inspections), in accordance with §334.42 and §334.48

[§334.48(g)] of this title (relating to General Standards; and General Operating and Management Requirements);

(v) corrosion protection records, in accordance with §334.49(e) of this title (relating to Corrosion Protection);

(vi) release detection records, in accordance with §334.50(e) of this title (relating to Release Detection);

(vii) spill and overflow control records, in accordance with §334.51(c) of this title (relating to Spill and Overflow Prevention and Control);

(viii) records for repairs and relining of a UST system, in accordance with §334.52(e) [§334.52(d)] of this title (relating to Underground Storage Tank System Repairs and Relining);

(ix) records for reuse of used tanks, in accordance with §334.53(c) of this title (relating to Reuse of Used Tanks);

(x) records for temporary removal of UST systems from service, in accordance with §334.54(e)(4) [§334.54(f)(4)] of this title (relating to Temporary Removal from Service);

(xi) records for permanent removal of UST systems from service, in accordance with §334.55(f) of this title.

(C) Legible copies of all required financial assurance records must be maintained in accordance with the applicable provisions of Chapter 37, Subchapter I of this title.

(D) Legible copies of previous and current registration and self-certification forms required to be filed annually with the agency under §334.8(c) of this title, as well as UST delivery certificates, must be maintained for at least five years from the original date of submittal.

**§334.19. Fee on Delivery of Petroleum Product.**

(a) A fee is imposed on the delivery of a petroleum product on withdrawal from bulk of that product as provided by this subsection and pursuant to Texas Water Code (TWC), §26.3574 [§26.3573]. "Withdrawal from bulk" means["] the removal of a petroleum product from a bulk facility storage tank for delivery directly into a cargo tank or a barge to be transported to another location other than another bulk facility for distribution or sale in this state. Each supplier [operator of a bulk facility] on withdrawal from bulk of a petroleum product shall collect from the person who orders the withdrawal a fee in an amount determined as follows, subject to future adjustments made under subsection (b) of this section:

(1) not more than \$3.75 [\$2.75] for each delivery [made after June 30, 2012] into a cargo tank having a capacity of less than 2,500 gallons.

(2) not more than \$7.50 [\$5.50] for each delivery [made after June 30, 2012] into a cargo tank having a capacity of 2,500 gallons or more but less than 5,000 gallons.

(3) not more than \$11.75 [\$8.65] for each delivery [made after June 30, 2012] into a cargo tank having a capacity of 5,000 gallons or more but less than 8,000 gallons.

(4) not more than \$15.00 [\$11] for each delivery [made after June 30, 2012] into a cargo tank having a capacity of 8,000 gallons or more but less than 10,000 gallons; and

(5) not more than \$7.50 [\$5.50] for each increment of 5,000 gallons or any part thereof delivered [after June 30, 2012] into a cargo tank having a capacity of 10,000 gallons or more.

(b) TCEQ may adjust the fee rates in subsection (a) of this section through an appropriate notification process, such as but not limited to *Texas Register* publication with public comment, based on the agency's cost of administering this chapter in accordance with TWC, §26.3574(b-1), but not to exceed the maximum rates set by TWC [Texas Water Code], §26.3574. The projected rates will account for the biennial appropriations to the agency from the Petroleum Storage Tank Remediation Account Number 655, as well as fund obligations for Account Number 655, with projected revenue from the fee based on such factors as estimated fuel sales, population growth, consumer price index, and gas production.



**SUBCHAPTER C: TECHNICAL STANDARDS**

**§§334.42, 334.45 - 334.48, 334.50 - 334.52, 334.54**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule; TWC, §26.011, which requires the commission to control the quality of water by rule; TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding underground and aboveground storage tanks; TWC, §26.347, which requires the commission to adopt performance standards, including design, construction, installation, release detection, and compatibility standards for existing and new underground storing tank systems; TWC, §26.3475, which requires underground storage tank systems to comply with commission requirements for tank release detection equipment and spill and overflow equipment; and TWC, §26.348, which directs the commission to adopt standards of performance for maintaining a leak detection system.

The United States Environmental Protection Agency has amended the rules pertaining to underground storage tank requirements and standards (40 Code of Federal Regulations (CFR) Part 280) and state program approval (40 CFR Part 281), effective October 13, 2015. TWC, §26.357, requires standards and rules concerning underground storage tanks adopted by the commission to be at least as stringent as federal requirements. The rules implement or track as closely as possible the amended federal rules.

**§334.42. General Standards.**

(a) All components of any new or existing underground storage tank (UST) system subject to the provisions of this subchapter shall be designed, installed, maintained, and operated in a manner that will prevent releases of regulated substances due to structural failure or corrosion.

(b) All [For all] components of any new or existing UST system (including the tank, piping, containment sumps, pumping equipment, release detection equipment, spill equipment, and overflow equipment) subject to the provisions of this subchapter which contain, have contained, or will contain a regulated substance, the surfaces of such components which are in direct contact with the regulated substance shall be constructed of or lined with materials that are compatible with the substance stored in such components. Any compatibility determination or analysis shall be in accordance

with a code or standard of practice developed by a nationally recognized association or independent testing laboratory (such as American Petroleum Institute Recommended Practice 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Filling Stations"). Owners and operators may demonstrate compatibility of the UST system by using one of the following options:

(1) certification or listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the regulated substance stored;

(2) for equipment or component manufacturer approval, the manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the equipment or component is compatible with, and be from the equipment or component manufacturer; or

(3) use another option determined by the executive director to be no less protective of human health and the environment than the options listed in this subsection.

(c) The owners and operators of UST systems subject to the provisions of this subchapter and those persons and/or business entities who engage in, perform, or supervise the installation, repair, or removal of UST systems shall be responsible for

ensuring that those UST systems are designed, installed, repaired, removed, and operated in accordance with the provisions of this subchapter, as provided under §334.12(b) of this title (relating to Other General Provisions) and under the provisions of Chapter 70 of this title (relating to Enforcement).

(d) When provisions of this subchapter require compliance with a specific code or standard of practice developed by a nationally recognized association or independent testing laboratory, the most recent version of the referenced code in effect at the time of the regulated UST activity shall be applicable.

(e) Compliance with the provisions of this subchapter shall not relieve an owner or operator of a [an] UST system from compliance with other applicable regulations legally developed by other governmental entities. This requirement is more fully discussed in §334.12(a) of this title.

(f) Unless otherwise stated in a variance approved by the agency in accordance with §334.43 of this title (relating to Variances and Alternative Procedures), the requirements of this subchapter shall take precedence if and when such requirements are determined to be in conflict with any provisions contained in the following:

(1) any code or standard of practice developed by a nationally recognized association or independent testing laboratory; and

(2) the manufacturer's [manufacturers'] specifications and instructions for installation and operation of UST equipment.

(g) Any underground component of a [an] UST system installed on or after September 29, 1989, shall be properly protected from corrosion by one or more of the allowable methods in §334.49(b) of this title (relating to Corrosion Protection).

(h) Any new tank or line or dispenser installed as part of a UST system on or after January 1, 2009, shall incorporate secondary containment meeting the applicable requirements of §334.45(d) of this title (relating to Technical Standards for New Underground Storage Tank Systems).

(i) Any sumps (including dispenser sumps) or manways installed prior to January 1, 2009, which are utilized as an [a] integral part of a UST release detection system to monitor the interstitial space of a secondarily contained piping system, and any overspill containers or catchment basins installed at any time, which are associated with a UST system must be inspected at least once every 60 days to assure that their sides, bottoms, and any penetration points are maintained liquid tight. Any liquid or debris found in them during that inspection or an agency or agency-authorized inspection must be removed [and properly disposed of] within 96 hours of discovery and properly disposed. This requirement applies through December 31,

2020, after which the requirements in §334.48(h) of this title (relating to General Operating and Management Requirements), shall apply.

### **§334.45. Technical Standards for New Underground Storage Tank Systems**

(a) General requirements.

(1) Any new underground storage tank (UST) system installed on or after September 29, 1989, [the effective date of this subchapter] shall be in compliance with the provisions of this section during the entire operational life of the UST system.

(2) Any new UST system shall be designed, installed, and operated in a manner that will prevent releases due to structural failure or corrosion for the operational life of the UST system.

(3) The surfaces of all components of the new UST system which are in direct contact with a regulated substance shall be constructed of or lined with materials that are compatible with such regulated substances.

(4) All components of the new UST system which convey, contain, or store regulated substances shall be properly protected from corrosion in accordance with the applicable provisions in §334.49 of this title (relating to Corrosion Protection).

(5) All tanks, piping, and other ancillary equipment in a new UST system shall be installed in accordance with the requirements of §334.46 of this title (relating to Installation Standards for New Underground Storage Tank Systems).

(b) Technical standards for new tanks.

(1) Tank design and construction. Each new tank shall be properly designed, constructed, and protected from corrosion in accordance with one or more of the methods listed in subparagraphs (A) - (G) of this paragraph, and in accordance with specific codes and standards of practice developed by nationally recognized associations and independent testing laboratories, as referenced in the following subparagraphs:

(A) The tank may be constructed of fiberglass-reinforced plastic. Tanks constructed under this method shall meet an industry code of practice such as:

(i) Underwriters Laboratories, Inc. (UL) Standard 1316,  
"[Standard for Safety for] Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures;" or [";]

(ii) Underwriter's Laboratories of Canada (ULC) S615,

"Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids."

(B) The tank may be constructed of coated steel and equipped with a factory-installed cathodic corrosion protection system. Any tank constructed under this method shall be thoroughly coated with a suitable dielectric material, shall be equipped with a factory-installed cathodic corrosion protection system meeting the appropriate design and operational requirements in §334.49(c)(1) of this title, and shall meet an industry code of practice such as [the following standards]:

(i) UL Standard 58, "Standard for [Safety for] Steel Underground Tanks for Flammable and Combustible Liquids;" ["; and]

(ii) Part I of UL Standard 1746, "Standard for [Safety for] External Corrosion Protection Systems For [for] Steel Underground Storage Tanks;"[,] or

(iii) Steel Tank Institute (STI) Standard, "[Specification for] sti-P<sub>3</sub> Specification and Manual for [System of] External Corrosion Protection of Underground Steel Storage Tanks."



(C) The tank may be constructed of coated steel and equipped with a field-installed cathodic corrosion protection system. Any tank constructed under this method shall be thoroughly coated with a suitable dielectric material, shall be equipped with a field-installed cathodic protection system meeting the appropriate design and operational requirements in §334.49(c)(2) of this title, and shall meet the following standards:

(i) UL Standard 58, "Standard for [Safety for] Steel Underground Tanks for Flammable and Combustible Liquids;" and

(ii) NACE International Standard SP0285 [RP0285-95], "External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."

(D) The tank may be factory-constructed either as a steel/fiberglass-reinforced plastic composite tank, or as a steel tank with a bonded fiberglass-reinforced plastic external cladding or as a steel tank with a bonded fiberglass reinforced polyurethane coating. Any tank constructed under this method is not required to be equipped with a cathodic protection system, provided that the tank meets the following requirements:

(i) The tank shall be equipped with a factory-applied external fiberglass-reinforced plastic or fiberglass reinforced polyurethane cladding or laminate which has a total dry film thickness of 100 mils minimum and 125 mils nominal;

(ii) The tank shall be operated and maintained in accordance with the requirements of §334.49 of this title;

(iii) The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards; and

(iv) [(iii)] The tank shall be designed and fabricated in accordance with one or more of the following standards:

(I) Part II of UL Standard 1746, "Standard for [Safety for] External Corrosion Protection Systems For [for] Steel Underground Storage Tanks;"[;]

(II) [Steel Tank Institute (|STI|)] ACT-100, "Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks;"[;] or

(III) any other UL, [or] STI, or ULC [Underwriters' Laboratories of Canada (ULC)] standard which incorporates the requirements contained in the standards listed in either subclause (I) or (II) of this clause, [; and]

[(iv) The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards.]

(E) The tank may be factory-constructed as a steel tank with a bonded polyurethane external coating. Any tank constructed under this method is not required to be equipped with a cathodic protection system, provided that the tank meets the following requirements:

(i) The tank shall be equipped with a factory-applied external polyurethane coating which has a minimum dry film thickness of 70 mils;

(ii) The tank shall be operated and maintained in accordance with the applicable requirements of §334.49 of this title;

(iii) The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards; and

(iv) [(iii)] The tank shall be designed and fabricated in accordance with one or more of the following standards:

(I) Part IV of UL Standard 1746, "Standard for [Safety for] External Corrosion Protection Systems For [for] Steel Underground Storage Tanks;"[;]

(II) [Steel Tank Institute ([STI])] ACT-100-U, "Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks;"[;] or

(III) any other UL, STI [or STL], or ULC [Underwriters' Laboratories of Canada (ULC)] standard which incorporates the requirements contained in the standards listed in either subclause (I) or (II) of this clause, [; and]

[(iv) The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards.]

(F) The tank may be factory-constructed as a steel tank completely contained within a nonmetallic external tank jacket. Any tank constructed under this method is not required to be equipped with a cathodic protection system, provided that the tank meets the following requirements:

(i) The tank shall be equipped with a factory-constructed nonmetallic external jacket which provides both secondary containment and corrosion protection;

(ii) The tank shall be operated and maintained in accordance with the applicable requirements of §334.49 of this title;

(iii) The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards; and

(iv) [(iii)] The tank shall be designed and fabricated in accordance with the following:

(I) Part III of UL Standard 1746, "Standard for [Safety for] External Corrosion Protection Systems For [for] Steel Underground Storage Tanks;"[;] or

(II) STI Specification F922, "Steel Tank Institute Specification for Permatank;" or

(III) [(II)] any other UL, [or] STI, or ULC [Underwriters' Laboratories of Canada (ULC)] standard which incorporates the requirements contained in the standard listed in subclause (I) or (II) of this clause. [; and]

[iv] The tank shall be electrically isolated from all other metallic structures by use of dielectric bushings or other appropriate methods utilized in accordance with applicable industry standards.]

(G) The tank may be designed, constructed, and protected from corrosion by an alternate method which has been reviewed and determined by the agency to control corrosion and prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and safety and the environment than the methods described in subparagraphs (A) - (F) [(D)] of this paragraph, in accordance with the procedures in §334.43 of this title (relating to Variances and Alternative Procedures).

(2) Spill and overflow prevention equipment. All new tanks shall be equipped with spill and overflow prevention equipment, in accordance with §334.51(b) of this title (relating to Spill and Overflow Prevention and Control).

(3) Release detection for new tanks. All new tanks shall be monitored for releases of regulated substances in accordance with §334.50 of this title (relating to Release Detection).

(4) Other new tank components.

(A) Fittings. All metallic tank fittings (e.g., bung hole plugs) shall be protected from corrosion and shall be either:

(i) isolated from the backfill material and groundwater or any other water;

(ii) thoroughly coated with a suitable dielectric material, in accordance with the tank manufacturer's specifications; or

(iii) cathodically protected in accordance with the applicable provisions in §334.49(c) of this title.

(B) Striker plates. Factory-installed striker plates shall be located on the interior bottom surface of each tank under all fill and gauge openings.

(C) Dielectric bushings or fittings. In order to provide electrical isolation of the tank from other connected metal components, all coated steel tanks equipped with either a factory-installed cathodic protection system or a factory-applied fiberglass-reinforced plastic laminate or cladding shall also be fitted with dielectric bushings or fittings at each tank opening where other metal UST system components are connected, except for unused openings closed with metal plugs and for openings where the connected component is non-metallic.

(c) Technical standards for new piping.

(1) Piping design and construction. All new underground piping (including associated valves, fittings, and connectors) in a [an] UST system shall be properly designed, constructed, and protected from corrosion in accordance with one of the methods listed in subparagraphs (A) - (D) of this paragraph and in accordance with specific codes and standards of practice developed by nationally recognized associations and independent testing laboratories, as referenced in the following subparagraphs.



(A) The piping may be constructed of fiberglass-reinforced plastic.

Piping constructed under this method shall meet the following standards:

(i) UL Standard 971, "Standard for [Safety for] Nonmetallic Underground Piping For [for] Flammable Liquids;"[;] and

(ii) ULC Standard S660, "Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids." [UL Standard 567, "Standard for Safety for Pipe Connectors for Petroleum Products and LP Gas."]

(B) The piping may be constructed of coated steel. Piping constructed under this method shall be thoroughly coated with a suitable dielectric material, shall be cathodically protected with a field-installed cathodic protection system meeting the appropriate design and operational requirements in §334.49(c) of this title, and shall meet the applicable provisions of the following standards.

(i) UL Standard 971A, "Outline of Investigation for Metallic Underground Fuel Pipe;" [NFPA Standard 30, "Flammable and Combustible Liquids Code";]

(ii) STI Recommended Practice R892, "Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with

Liquid Storage and Dispensing Systems;" [API Publication 1615, "Installation of Underground Petroleum Storage Systems";]

(iii) American Petroleum Institute [API] Publication 1632, "Cathodic Protection of Underground Storage Tanks and Piping Systems;" [;and]

(iv) NACE International Standard Practice SP0169 [RP0169-96], "Control of External Corrosion on Underground or Submerged Metallic Piping Systems; and [.]"

(v) NACE International Standard Practice SP0285, "External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."

(C) The piping may be constructed of flexible nonmetallic material. Piping constructed under this method shall meet the following standards:

(i) UL Standard 971, "Standard for [Safety for] Nonmetallic Underground Piping For [for] Flammable Liquids;"[;] and

(ii) ULC Standard S660, "Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids." [UL Standard 567, "Standard for Safety for Pipe Connectors for Petroleum Products and LP Gas."]

(D) The piping may be designed, constructed, and protected from corrosion by an alternate method which has been reviewed and determined by the agency to prevent the release of any stored regulated substance in a manner that is no less protective of human health and the environment than the methods described in subparagraphs (A) and (B) of this paragraph. Any alternative methods must be submitted and approved in accordance with the procedures in §334.43 of this title.

(2) Release detection for new piping. All new piping shall be monitored for releases of regulated substances in accordance with §334.50(b)(2) of this title.

(3) Other new piping components.

(A) For piping systems in which regulated substances are conveyed under pressure to an aboveground dispensing unit, a UL-listed (or agency accepted equivalent listing by [Underwriters' Laboratories of Canada (ULC) emergency shut-off [shutoff] valve (also called a shear or impact valve) shall be installed in each pressurized delivery or product line and shall be securely anchored at the base of the dispenser. This shut-off valve shall include a fusible link, and shall be designed to provide a positive shut-off of product flow in the event that a fire, collision, or other emergency occurs at the dispenser end of the pressurized line.

(B) UL-listed (or agency accepted equivalent listing by [Underwriter's Laboratories of Canada (UL)], or Factory Mutual Research Corporation (FMRC)) flexible connectors shall be installed at both ends of each pressurized product or delivery line to provide flexibility and to allow for vertical and horizontal movement in the piping, unless inherently flexible piping is installed in accordance with manufacturer's requirements and in accordance with an applicable code or standard of practice developed by a nationally recognized association or independent testing laboratory. The use of metal swing joints in a pressurized UST piping system is specifically prohibited.

(C) If buried and in contact with soil or backfill materials, all metallic pipe, valves, and fittings (including flexible connectors) shall be equipped with corrosion protection meeting the applicable requirements in §334.49 of this title.

(D) Only UL-listed (or agency accepted equivalent listing by [Underwriters' Laboratories of Canada (UL)], or [Factory Mutual Research Corporation (FMRC)]) flexible connectors or nonmetallic piping listed for aboveground use or listed for use in sumps can be used without backfill cover in sumps, manways, or dispenser pans.

(d) Secondary containment for UST systems.

(1) Applicability.

(A) A secondary containment system meeting the requirements of this subsection shall be installed as part of any hazardous substance UST system[, in accordance with the applicable schedules in §334.44(a)(2) and (b)(2) of this title (relating to Implementation Schedules)].

(B) A double-wall tank and piping system (or approved alternative) meeting the applicable requirements of this subchapter shall be installed for any UST system situated on [in] the Edwards Aquifer recharge or transition zones or contributing zone within the transition zone, in accordance with Chapter 213 of this title (relating to Edwards Aquifer).

(C) A [An] UST system, at a minimum, shall incorporate secondary containment as specified in Texas Water Code, §26.3476, if the UST system is located in an area described in that provision.

(D) The agency may specifically require the installation of a secondary containment system meeting the requirements of this subsection at other times when necessary for the protection of human health or safety or the environment.

(E) Requirements applicable to new tanks, lines and/or dispensers (including related sumps or manways) installed on or after January 1, 2009:

(i) Any new tank or line installed as part of a UST system must incorporate secondary containment in accordance with the applicable requirements of this subchapter, except that external liners will not be allowed as a secondary containment method.

(ii) Up to 35% of the total original length of an existing single-wall [singlewall] line can be replaced with new single-wall [singlewall] line in accordance with the applicable requirements of this subchapter without triggering the secondary containment requirement for that line, unless the new line segment connects the existing line to a new dispenser. If more than 35% of the total original length of an existing single-wall [singlewall] line is to be replaced, or the new line segment connects the existing line to a new dispenser, that line segment must be replaced with a line which incorporates secondary containment.

(iii) The interstice of the secondarily contained tank and/or line must be monitored in accordance with the requirements of §334.50(d)(7) of this title.

(iv) Any sumps (including dispenser sumps) or manways which are used for interstitial monitoring of piping [included in a new secondarily contained UST system which are utilized as an integral part of a UST release detection system to monitor the interstitial space of a new secondarily contained piping system] must be compatible with the stored substance(s), must be installed and maintained in a manner that assures that their sides, bottoms, and any penetration points are liquid tight, and must be inspected in accordance with the requirements in §334.42 and §334.48 of this title (relating to General Standards; and General Operating and Management Requirements) [for tightness annually and tested for tightness immediately after installation and at least once every three years thereafter].

(v) Under-dispenser containment in the form of a dispenser sump is required for any new dispenser. A new dispenser is defined in §334.2 of this title (relating to Definitions). New dispensers must employ a dispenser sump which is compatible with the stored substance; is installed and maintained in a manner that assures that its sides, bottoms, and any penetration points are liquid tight; and must be inspected for tightness annually and tested for tightness, immediately after installation and at least once every three years thereafter. [A new dispenser is defined as:]

[(I) any dispenser which is installed where none previously existed; or]

[ (II) any existing dispenser which is removed and replaced with another dispenser and transitional piping components beneath the replacement dispenser (e.g., flexible connectors or piping risers) which serve to connect the dispenser to the underground piping are replaced. Each new dispenser must employ a dispenser sump which is compatible with the stored substance, is installed and maintained in a manner that assures that its sides, bottoms, and any penetration points are liquid tight, and must be inspected for tightness annually and tested for tightness, immediately after installation and at least once every three years thereafter.]

(vi) Any sumps (including dispenser sumps) or manways which are used for interstitial monitoring of piping [included in a new secondarily contained UST system which are utilized as an integral part of a UST release detection system to monitor the interstitial space of a new secondarily contained piping system, and any new dispenser sumps] must be equipped with a liquid sensing probe(s) which will alert the UST system owner or operator if more than two inches of liquid collects in any sump or manway.

(vii) Liquids and/or debris found in any sumps (including dispenser sumps) or manways which are used for interstitial monitoring of piping must be removed within 96 hours of alert or discovery and properly disposed



[included in a new secondarily contained UST system and utilized as an integral part of a UST release detection system to monitor the interstitial space of a new secondarily contained piping system, and/or in any new dispenser sumps must be removed and properly disposed of within 96 hours of alert or discovery].

(viii) Inspections and testing.[:]

(I) Inspections must be performed by a qualified person who is competent to conduct the inspection in accordance with recognized industry practices and in accordance with industry standards, if applicable.

(II) Testing of tanks and/or lines shall be performed in accordance with the applicable requirements of this chapter. Testing of sumps (including dispenser sumps) or manways [(including dispenser sumps)] must be performed by a qualified person who is competent to conduct the inspection in accordance with recognized industry practices and in accordance with industry standards, if applicable.

(2) General performance standards. All secondary containment systems installed as part of a UST system shall be:

(A) designed, installed, and operated in a manner that will prevent the release of regulated substances from such secondary containment system into the surrounding soil, backfill, groundwater, or surface water during the operational life of the UST system;

(B) capable of collecting and containing releases of regulated substances from any portion of the primary containment vessels (e.g., tanks and piping) until such released substances are removed;

(C) constructed of or lined with materials which are compatible with the stored regulated substance;

(D) constructed of materials having sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the stored regulated substance (and any other substance to which they may normally be exposed), climatic conditions, the stresses of installation, and the stresses of daily operation (including stresses from nearby vehicular traffic); and

(E) installed on a properly designed and properly placed bedding or backfill material which is capable of providing adequate support for the secondary containment system, capable of providing adequate resistance to any pressure

gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift.

(3) Secondary containment for tanks. One or more of the following methods may be used to provide secondary containment for tanks.

(A) Double-wall tanks. Double-wall tanks may be used to comply with the secondary containment requirements of this subchapter, provided that such tanks shall meet the following additional provisions.

(i) The secondary wall of such double-wall tanks shall be structurally designed to contain and support the full-load capacity of the primary tank without failure.

(ii) The double-wall tank (including both the primary and secondary tank walls) shall be protected from corrosion in accordance with one or more of the allowable methods included in §334.49 of this title.

(iii) The double-wall tank shall be designed, installed, operated, and maintained in accordance with one of the applicable codes or standards of practice listed as follows:

(I) for fiberglass-reinforced plastic tanks: UL Standard 1316, "[Standard for Safety for] Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures;[.]"

(II) for steel tanks: STI Standard F841, "Standard for Dual Wall Underground Steel Storage Tanks;[.]" UL Standard 58, "Standard for [Safety for] Steel Underground Tanks for Flammable and Combustible Liquids;[.]" and other applicable UL standards for double-wall steel tanks; and

(III) any other code or standard of practice developed by a nationally recognized association or independent testing laboratory that has been reviewed and determined by the agency to be no less protective of human health and safety and the environment than the standards described in subclauses (I) and (II) of this clause, in accordance with procedures in §334.43 of this title.

(iv) The double-wall tank system shall be installed in accordance with the requirements in §334.46(f)(2) of this title.

(B) External liners. Tank excavation liners may be used to comply with the secondary containment requirements of this paragraph, provided that such liners shall meet the following additional provisions.

(i) The tank excavation liner shall consist of an artificially constructed material that is of sufficient strength, thickness, puncture-resistance, and impermeability (i.e., allow permeation at a rate of no more than 0.25 ounces per square foot per 24 hours for the stored regulated substance) in order to permit the collection and containment of any releases from the UST system. The criteria for evaluation of the liner for compliance with this clause shall be in accordance with accepted industry practices for materials testing. Types of liners which may be used include certain reinforced and unreinforced flexible-membrane liners, rigid fiberglass-reinforced plastic liners, and reinforced concrete vaults.

(ii) The liner shall be protected from corrosion in accordance with one or more of the allowable methods included in §334.49 of this title.

(iii) The liner shall be sufficiently compatible with the stored regulated substance, so that any regulated substance collected in the liner system shall not cause any substantial deterioration of the liner that would allow the regulated substances to be released into the environment.

(iv) The liner shall be designed to provide a containment volume of no less than 100% of the full capacity of the largest tank within its containment area.

(v) The liner shall be installed in accordance with the requirements in §334.46(f)(4) of this title.

(4) Secondary containment for piping. One or more of the following methods shall be used to provide secondary containment for piping.

(A) Double-wall piping. Double-wall piping systems may be used to comply with the secondary containment requirements of this subchapter, provided that such piping systems meet the following additional provisions.

(i) The double-wall piping system shall be designed to contain a release from any portion of the primary piping within the secondary piping walls.

(ii) The double-wall piping system (including both the primary and secondary piping) shall be protected from corrosion in accordance with one or more of the allowable methods included in §334.49 of this title.

(iii) The double-wall piping system shall be designed, installed, and operated in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(iv) The double-wall piping system shall be installed in accordance with the requirements in §334.46(f)(3) of this title.

(B) External liners. External piping trench liners may be used to comply with the secondary containment requirements of this paragraph, provided that such liners meet the additional provisions in paragraph (3)(B) of this subsection.

(e) Technical standards for other new UST system equipment.

(1) Vent lines. All underground portions of the vent lines (including all associated underground valves, fittings, and connectors) shall be designed and constructed in accordance with the piping requirements in subsection (c)(1) of this section, shall be properly protected from corrosion in accordance with one of the allowable methods in §334.49 of this title, and shall be installed in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(2) Fill pipes. All fill pipes (including any connected fittings) shall be:

(A) designed and constructed in accordance with the piping requirements in subsection (c)(1) of this section;

(B) properly protected from corrosion in accordance with one of the allowable methods in §334.49 of this title;

(C) properly enclosed in or equipped with spill and overflow prevention equipment as required in §334.51(b) of this title; and

(D) equipped with a removable or permanent factory-constructed drop tube which shall extend to within 12 inches of the tank bottom.

(3) Release detection equipment. All release detection equipment shall be designed and constructed in accordance with the requirements for the particular type of equipment, as described in the applicable provisions in §334.50 of this title.

(4) Monitoring wells and observation wells.

(A) All monitoring wells and observation wells installed on or after September 29, 1989, [the effective date of this subchapter] shall be designed, constructed, and installed in accordance with the requirements in §334.46(g) of this title.



(B) Each separate tank hole in a new UST system installed on or after September 29, 1989, [the effective date of this subchapter] shall include a minimum number of four-inch diameter (nominal) observation wells, as specified in the following clauses:

(i) for a tank hole containing only one tank, a minimum of one observation well shall be required; and

(ii) for a tank hole containing two or more tanks, a minimum of two observation wells shall be required.

(f) Records for technical standards for new UST systems. Owners and operators of new UST systems shall maintain adequate records to demonstrate compliance with the applicable provisions in this section, which at a minimum, shall include all records required in §334.46(i) of this title. All records shall be maintained in accordance with §334.10(b) of this title (relating to Reporting and Recordkeeping).

**§334.46. Installation Standards for New Underground Storage Tank Systems.**

(a) General installation procedures. Any new underground storage tank (UST) system installed on or after September 29, 1989, [the effective date of this subchapter] shall be installed in compliance with the provisions of this section.

(1) Standards. All tanks, piping, and associated equipment shall be installed in accordance with at least one of the following standards, as applicable:

(A) Petroleum Equipment Institute [PEI] Publication RP-100, "Recommended Practices for Installation of Underground Liquid Storage Systems["];

(B) American Petroleum Institute [API] Publication 1615, "Installation of Underground Petroleum Storage Systems["];

(C) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code" and Standard 30A, "Code for Motor Fuel Dispensing Facilities and Repair Garages;" [ANSI Standard B31.3, "Petroleum Refinery Piping" and ANSI Standard B31.4, "Liquid Petroleum Transportation Systems";] or

(D) any other code or standard of practice developed by a nationally recognized association or independent testing laboratory that has been reviewed and determined by the agency to be no less protective of human health and safety and the environment than the standards described in subparagraphs (A) - (C) of this paragraph, in accordance with the procedures in §334.43 of this title (relating to Variances and Alternative Procedures).

(2) Installation personnel. All tanks, piping, and associated equipment shall be installed by personnel possessing the appropriate skills, experience, competence, and, if applicable, any required certification or license to complete the installation in accordance with recognized industry practices and this chapter, and in a manner designed to minimize the possibility of UST system failures and the releases of regulated substances.

(3) Damages.

(A) All reasonable precautions shall be taken to prevent improper handling and damaging of the tanks and piping during the unloading and installation processes.

(B) Tanks and piping shall be physically inspected by the installer prior to installation.

(C) Any damage shall be repaired in accordance with the manufacturer's specifications; otherwise, damaged tanks and/or piping shall be replaced.

(4) Excavation.

(A) The tank excavation zone and piping trenches shall provide adequate vertical and horizontal space for the tanks, piping, and associated equipment, for the proper placement and compaction of bedding and backfill materials (particularly under the lower quadrant of the tank's circumference), and for adequate cover and paving to accommodate anticipated traffic loads.

(B) Tank excavation shall be performed in a manner that will avoid the undermining of foundations and other existing structures, and shall be constructed not less than three feet from the base of adjacent structures (unless specifically approved by a licensed professional engineer) and not less than three feet from any underground utility easements and property lines.

(5) Bedding and backfill.

(A) The bedding and backfill shall consist of clean, washed, suitably graded, and noncorrosive sand, crushed rock, or pea gravel.

(B) The bedding and backfill material shall be selected and placed in accordance with the tank and piping manufacturer's specifications, and shall be placed and compacted in uniform lifts, as appropriate, to assure proper support and protection of the tank and piping after installation.

(C) Minimum bedding and backfill requirements shall be in accordance with the applicable industry standard for the construction, as prescribed in this subsection.

(D) The placement of tanks or piping directly on native soils, concrete pads or saddles, or any other underlayment except the bedding materials listed in this paragraph is specifically prohibited.

(b) Anchoring systems. Unless otherwise approved by the agency in accordance with §334.43 of this title, all USTs located in areas subject to high water tables or flooding shall be protected from any flotation or movement which could jeopardize the integrity of the UST system.

(1) Methods to prevent tank flotation shall be in accordance with the tank manufacturer's specifications and shall be one (or a combination) of the following methods:

(A) the provision of ample backfill and/or paving on top of the tank to offset the buoyancy forces;

(B) the installation of a properly designed deadman anchoring system, where the concrete beams shall be placed outside the vertical extension of the

tank diameter and where the length of the beams shall extend at least one foot beyond the ends of the tank; or

(C) the installation of a properly designed concrete hold-down pad anchoring system beneath the tank, where the pad's width and length shall extend at least one foot beyond the tank sides and ends in all directions.

(2) The installation of anchoring straps or cables shall be in accordance with the tank manufacturer's specifications. All parts of the straps, cables, and hardware shall be of corrosion-resistant material or, if metallic, shall be thoroughly coated or wrapped with a suitable dielectric material.

(c) Piping system installation.

(1) The piping layout shall be designed in a manner that will minimize the crossing of other lines and conduits, and the crossing of tanks and other UST system components. Where such crossing is unavoidable, adequate clearance shall be provided to prevent contact.

(2) Traps, sumps, or sags in the lines shall be avoided, and all piping shall slope at least 1/8 inch per foot in the direction of the tank.

(3) All piping joints shall be accurately cut, deburred, cleaned, and sealed with appropriate piping sealant, bonding agent, or adhesive in accordance with the piping manufacturer's specifications so as to provide liquid-tight connections.

(d) Installation testing for new tanks and piping.

(1) Air testing of new tanks shall be conducted in accordance with the tank manufacturer's specifications.

(A) Air testing for single-wall tanks shall include the soaping of all surfaces, seams, and fittings, pressurizing and gauging with three to five pounds per square inch gauge (psig) air pressure for at least one hour, monitoring the gauge for pressure drops, and inspecting for bubbles.

(B) Air testing for double-wall tanks shall be in accordance with subsection (f)(2)(B) of this section.

(C) Gauges used in air testing procedures shall have a maximum range not exceeding 15 psig. All tanks undergoing air pressure testing shall be equipped with a pressure relief device capable of relieving the total output of the compressed air source at a pressure of not more than six psig.

(2) Air testing of new piping, fittings, and valves shall be conducted in accordance with the manufacturer's specifications. New piping shall be tested before being covered and placed into use. Air testing of piping shall include the soaping of all joints, pressurizing with compressed air to 150% of the maximum piping operating pressure, or a minimum of 50 psig, for at least one hour, and inspecting for bubbles. Air testing for secondary containment piping shall be in accordance with subsection (f)(3)(B) of this section.

(3) In addition to the air tests, a tank tightness test and a piping tightness test meeting the requirements of §334.50(b)(2)(A)(ii)(I) and (d)(1)(A) [§334.50(d)(1)(A) and (b)(2)(A)(ii)(I), respectively,] of this title (relating to Release Detection) shall be performed after the backfill has been placed but prior to bringing the new UST system into operation.

(4) Additional tests required. In addition to the air tests and tightness tests required in this subsection, the following additional installation tests shall be required, as applicable.

(A) For fiberglass-reinforced plastic tanks, the tank diameter shall be accurately measured prior to and after installation to ascertain the amount of vertical deflection, as specified in the tank manufacturer's installation procedures. Except when specifically authorized in writing by an authorized representative of the



tank manufacturer, tanks shall not be placed into operation if the measured vertical deflection exceeds the manufacturer's maximum allowable deflection ratings.

(B) For steel tanks and other underground UST system components which are equipped with factory-installed or field-installed cathodic corrosion protection systems, the cathodic protection systems shall be tested for operability and adequacy of protection by a qualified corrosion technician or qualified corrosion specialist after the UST system installation is completed but prior to placing the system into operation.

(i) If the test indicates that the cathodic protection system is inoperable or inadequate, a qualified corrosion specialist shall review the test results and thoroughly inspect the UST system to ascertain the extent of corrosion protection.

(ii) If the qualified corrosion specialist determines that the UST system component is no longer adequately protected from corrosion, then the owner or operator shall assure that one or more of the following procedures are completed before the UST system is placed into operation.

(I) Appropriate repairs or modifications shall be made to restore the cathodic corrosion protection to the applicable UST system components.

(II) The cathodic protection system shall be replaced with another operable cathodic protection system which will provide adequate corrosion protection to the applicable UST system components, in accordance with the requirements in §334.49(c)(2) of this title (relating to Corrosion Protection).

(e) Installation of cathodic protection systems. The installation of any field-installed cathodic protection system in a new or existing UST system shall be in accordance with the applicable requirements of §334.49(c)(2) of this title.

(f) Installation of secondary containment systems.

(1) Secondary containment. Any secondary containment system shall meet the technical standards of §334.45(d) of this title (relating to Technical Standards for New Underground Storage Tank Systems).

(2) Installation of double-wall tanks.

(A) The installation of double-wall tanks shall be in compliance with the manufacturer's specifications and the applicable tank installation procedures in this section.

(B) Air testing for double-wall tanks shall be in accordance with the manufacturer's specifications or the following procedures.

(i) The primary tank shall be pressurized and gauged with three to five psig of air pressure. The primary tank shall be pressurized for at least one hour, and the gauge pressure shall be periodically monitored for any pressure drops.

(ii) After disconnecting the outside air pressure source, the interstitial area between the tank walls shall be pressurized with air pressure from the primary tank. A second gauge shall be used to measure the pressure in the interstitial space.

(iii) The exterior of the tank shall be soaped, and the integrity of the system shall be inspected by monitoring the gauges and inspecting for air bubbles for at least one hour prior to releasing the pressure.

(iv) Gauges used in air testing procedures shall have a maximum range not exceeding 15 psig. All tanks undergoing air testing shall be equipped with a pressure relief device capable of relieving the total output of the compressed air source at a pressure of not more than six psig.

(3) Installation of double-wall piping.

(A) The installation of double-wall piping shall be in compliance with the manufacturer's specifications and the applicable piping installation procedures in this section.

(B) After successful air testing of the completed primary piping system (in accordance with subsection (d)(2) of this section), the secondary containment piping shall be air tested in accordance with the manufacturer's specifications and the following procedures.

(i) The secondary containment piping shall be pressurized and gauged with three to five psig of air pressure.

(ii) The exterior of the secondary containment piping shall be soaped and the integrity of the system shall be inspected by monitoring for air bubbles for at least one hour.

(iii) The secondary containment piping system shall remain pressurized, and the gauges shall be periodically monitored for pressure losses, until the entire UST system installation is complete in order to monitor for damages during the remaining construction activities.

(4) Installation of external liners.

(A) External liners shall be installed in accordance with the manufacturer's specifications, and in accordance with the requirements in this paragraph.

(B) The installation, field-seaming, and field-repair of any liners shall be performed only by qualified personnel who have been properly trained and certified by the liner manufacturer.

(C) The liner shall be protected from puncture, abrasion, or any other damage during placement and during installation of other UST system components. A protective layer of puncture-resistant filter fabric shall be required when the liner is placed in an excavation area where the presence of sharp paving, rocks, or other debris presents a threat to the liner integrity.

(D) The liner shall be installed in a manner that will allow sufficient enclosure of the secondarily protected component to prevent lateral and vertical migration of any collected regulated substances.

(E) For UST systems which are equipped with cathodic protection equipment, the liner shall be installed so as not to jeopardize or inhibit the proper operation of such cathodic protection equipment.

(F) The liner installation shall include the provision of an appropriate number of recessed collection/detection points, and all portions of the liner shall be sloped toward such points to permit the detection of any releases from the primary storage component.

(G) The installation of the liner shall be performed in a manner that will ensure that groundwater, soil moisture, and stormwater runoff will not adversely affect the liner's ability to collect and contain regulated substances or the ability of the selected release detection methods to operate effectively.

(H) The liner shall be designed and installed to ensure that it will always be situated above the highest groundwater level and outside the 25-year floodplain [flood plain], unless the liner and the release detection system are properly designed for use under such conditions. The owner or operator may be required to provide documentation of the methods used to determine groundwater and floodplain information.

(I) After completion of the liner installation, but prior to placing the UST system into service, the liner shall be properly tested in accordance with the manufacturer's specifications.

(g) Installation of monitoring wells and observation wells. All monitoring wells and observation wells installed in conjunction with a UST system on or after September 29, 1989, [the effective date of this subchapter] shall be constructed and installed in accordance with the requirements of this subsection.

(1) General requirements for both monitoring wells and observation wells.

(A) All monitoring wells and observation wells shall be constructed or installed by personnel possessing the appropriate skills, experience, competence, and, if applicable, any required license or certification to complete the construction or installation in accordance with recognized industry standards and the requirements of this subsection.

(B) Except for observation wells installed under §334.45(e)(4)(B) of this title, the determination of the appropriate number and the appropriate diameters of monitoring wells or observation wells shall be based on the planned purpose of

such well and on the specific procedures, methods, and equipment to be utilized in achieving such purpose.

(C) The slotted or screened portion of the monitoring well or observation well casing shall be designed and sized so as to prevent the migration of natural soils, backfill material, or filter pack material into the well, and to allow the unrestricted entry of any released regulated substances (liquid-phase or vapor-phase, as applicable) into the well at all times, regardless of the groundwater levels.

(D) The well casing material shall be sufficiently compatible with the stored regulated substance such that prolonged exposure to such substances will not cause failure or excessive deterioration of the casing.

(E) When installed or constructed for the purposes of compliance with one or more of the release detection methods in §334.50(d) of this title, the specific number and positioning of the monitoring wells and/or observation wells shall be based on the results of an assessment of the underground areas within and immediately surrounding the UST system excavation zone to assure compliance with the specific criteria and requirements for the applicable release detection method. Such assessment shall be performed by qualified personnel who are familiar with the characteristics of the stored regulated substance and the groundwater, soil, and geologic conditions at the site.



(F) All monitoring wells and observation wells shall be equipped with a properly designed and properly installed bottom cap.

(G) All monitoring well and observation well installations shall include an appropriate access vault or manhole, which shall be equipped with a liquid-tight cover and be designed to divert surface runoff away from the well.

(H) All monitoring wells and observation wells shall be properly capped, labeled, and secured (or locked) to prevent unauthorized access, tampering, and any deliberate or accidental depositing of unauthorized substances.

(2) Additional requirements for monitoring wells. In addition to the general requirements of paragraph (1) of this subsection, all monitoring wells installed in conjunction with a UST system shall be constructed or installed in accordance with the applicable requirements of 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers), and Texas Occupations Code, Chapter 1901 [Water Code (TWC), Chapter 32] (relating to Water Well Drillers). Any person constructing or installing a monitoring well shall be appropriately licensed as required therein.

(3) Additional requirements for observation wells. In addition to the general requirements of paragraph (1) of this subsection, the following requirements shall be applicable to all observation wells installed in conjunction with a UST system.

(A) All observation wells that are regulated as monitoring wells by the Texas Department of Licensing and Regulation (TDLR) [Water Well Drillers Board] shall be constructed or installed in accordance with the applicable requirements in 16 TAC Chapter 76, and Texas Occupations Code, Chapter 1901 [TWC, Chapter 32]. Any person constructing or installing such well shall be appropriately licensed as required therein.

(B) All observation wells that are not regulated as monitoring wells by the TDLR [Water Well Drillers Board] shall be constructed or installed in accordance with the following minimum requirements.

(i) All observation wells shall be designed and installed in general accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(ii) All observation wells shall be constructed or installed within the UST system excavation zone, and shall be completed to a depth of at least

two feet below the lowest part of any monitored tank, or at least one foot below the lowest part of any monitored piping, as applicable.

(iii) For observation wells installed or constructed on or after September 29, 1989, [the effective date of this subchapter] in a new or existing UST system where the backfill consists of specialized or select materials (i.e., sand, pea gravel, or crushed rock), the following minimum requirements shall be applicable.

(I) The access vault or manhole shall be properly installed in a concrete encasement which shall extend from the top of the vault to at least one foot below the base of the vault to provide adequate structural support and to prevent surface runoff and pollutants from entering the well.

(II) Beginning at the bottom of the concrete encasement beneath the access vault, the well casing shall be properly sealed with impervious bentonite or a similar impervious material for a minimum distance of either one foot below the bottom of the concrete encasement or to the top of the specialized or select backfill material, whichever is the greater depth.

(iv) For observation wells installed or constructed on or after September 29, 1989, [the effective date of this subchapter] in an existing UST system where the backfill consists of materials other than specialized or select

materials (e.g., native soils), the well shall be constructed or installed in accordance with the applicable standards in 16 TAC Chapter 76. If the observation well is not regulated as a monitoring well by the TDLR [Water Well Drillers Board], the licensing requirements for persons constructing or installing such well shall not be applicable.

(h) Certification of installation.

(1) All owners and operators of new UST systems installed on or after September 29, 1989, [the effective date of this subchapter] shall ensure that the installation was completed in accordance with the provisions of this section, and that the UST system installation is conducted by an installer licensed by the agency [following certification criteria applicable to the installation are met].

[(A) For all UST system installations commencing on or after the effective date of this subchapter but before February 1, 1990, the owner or operator shall assure that at least one of the following criteria is met:]

[(i) the installer of the UST system has been properly certified by the tank, piping, and equipment manufacturers;]

[ (ii) the installation has been inspected and certified by a licensed professional engineer with appropriate training and experience in UST system installation procedures;]

[ (iii) all construction and installation activities listed in the equipment manufacturers' checklists have been properly completed; or]

[ (iv) the installation activities have been reviewed and determined by the agency to prevent releases in a manner that is no less protective of human health and the environment than the methods described in clauses (i) - (iii) of this subparagraph. Any alternative methods must be submitted and approved in accordance with the procedures in §334.43 of this title.]

[ (B) For all UST system installations commencing on or after February 1, 1990, the owner or operator shall assure that the UST system installation is conducted by an installer licensed by the agency.]

(2) The installer of the UST system shall complete the installation certification section of the agency's authorized form, and shall certify by signature that the installation methods are in compliance with the provisions of this section, as required by §334.8(a) of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems).

(i) Installation records.

(1) Owners and operators shall maintain all installation records required in accordance with the requirements in §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) Owners and operators shall maintain the following records for the operational life of the UST system:

(A) general information relating to the installation activity, including:

(i) date of installation activity;

(ii) names, addresses, and telephone numbers of the persons conducting the installation and performing any associated inspections or testing; and

(iii) copies of all related notifications or reports filed with the agency or others, including:

(I) registration information, as required by §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems); and

(II) installation certification information, as required by §334.8(a) of this title;

(B) as-built drawings (or plans), which have been drawn to scale and in sufficient detail to accurately depict and describe the sizes, dimensions, and locations of the following:

(i) all pertinent site features, including property boundaries, street and road rights-of-way, easements, utility lines, buildings and other structures, driveways, slabs, and any natural features;

(ii) all pertinent UST system components, including tanks, piping, vent piping, pumps, dispensers, excavation zone (including tank hole and piping trench), monitoring wells, spill and overflow prevention equipment, release detection system components (including monitoring and testing locations), cathodic protection system components (including test stations), secondary containment systems, anchoring systems, and any other pertinent UST system components; and

(iii) any site features or UST system components which have been added, revised, changed, modified, or removed subsequent to the preparation of the original drawings or plans; and

(C) equipment information for all UST system components including:

(i) manufacturer's [manufacturers'] specifications, installation instructions, operating instruction, warranty information, recommended test procedures, and inspection and maintenance schedules; and

(ii) names, addresses, and telephone numbers of the manufacturer's [manufacturers'] representatives and local authorized service technicians.

(3) Owners and operators shall maintain the results of all equipment tests, including the air tests and the tightness tests conducted on the tanks and piping at the time of installation, for at least five years after the date of installation.

**§334.47. Technical Standards for Existing Underground Storage Tank Systems.**

(a) General requirements.



(1) Alternatives for existing underground storage tank (UST) systems. No later than the implementation dates specified in §334.44(b) of this title (relating to Implementation Schedules), all applicable components of any existing UST system (i.e., UST system for which installation has commenced or has been completed on or prior to December 22, 1988) shall be either installed, upgraded, improved, or replaced with equipment or components which meet or exceed either of the following requirements:

(A) the requirements for technical standards and installation of new UST systems in §334.45 of this title (relating to Technical Standards for New Underground Storage Tank [UST] Systems) and in §334.46 of this title (relating to Installation Standards for New Underground Storage Tank [UST] Systems); [or]

(B) the minimum upgrading requirements for existing UST systems in subsection (b) of this section; or [.]

(C) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code" and Standard 30A, "Code for Motor Fuel Dispensing Facilities and Repair Garages."

(2) If any applicable component of an existing UST system is not brought into timely compliance with the requirements of paragraph (1) of this subsection, the

UST system shall be permanently removed from service no later than 60 days after the prescribed implementation date. The permanent removal from service shall be conducted in accordance with the applicable provisions of §334.55 of this title (relating to Permanent Removal from [From] Service).

(b) Minimum upgrading requirements for all existing UST systems.

(1) Tank integrity assessment and UST system cathodic protection. No later than December 22, 1998, all tanks in an existing UST system shall be assessed for structural integrity, and all underground metallic components of an existing UST system shall be equipped with a cathodic protection system, as provided in the following subparagraphs.

(A) Tank integrity assessment. The tank shall be assessed for structural integrity and for the presence of corrosion holes by one or more of the following methods.

(i) The tank may be equipped with one or more of the release detection systems meeting the applicable requirements of §334.50(d)(4) - (10) of this title (relating to Release Detection). Such release detection system(s) shall have been in operation for at least 60 days prior to the date of the cathodic protection

system installation, and at least one of the systems shall remain in operation for the remaining operational life of the tank.

(ii) The tank may be tested by conducting at least two tank tightness tests meeting the requirements of §334.50(d)(1)(A) of this title. The first tightness test shall be conducted prior to installing the cathodic protection system, and the second test shall be conducted between three and six months after the cathodic protection system is placed into operation. For tanks constructed of non-corrodible [noncorrodible] material, or metal tanks clad or jacketed with non-corrodible [noncorrodible] material which are electrically isolated from surrounding soil, backfill or groundwater or any other water, the tank may be tested by conducting at least one tightness test meeting the requirements of §334.50(d)(1)(A) of this title, within the 12-month [12 month] period prior to December 22, 1998.

(iii) When the tank upgrading is to include the installation of an interior lining meeting the applicable provisions in §334.52(b) of this title (relating to Underground Storage Tank [UST] System Repairs and Relining), a site assessment or release determination may be conducted prior to the installation of the interior lining and the cathodic protection system. Such site assessment or release determination shall be conducted in accordance with the provisions of §334.55(e) of this title.

(iv) Prior to the installation of the cathodic protection system, the tank may be internally inspected and assessed to assure that the tank is structurally sound and free of corrosion holes, provided that such internal inspection shall be:

(I) conducted in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory; and

(II) performed by qualified personnel possessing the requisite training, experience, and competence to assure that any corrosion holes or structurally unsound areas are located.

(v) Prior to the installation of the cathodic protection system, the tank may be assessed for structural integrity and the presence of corrosion holes by an alternate method which has been reviewed and determined by the agency to prevent releases in a manner that is no less protective of human health and the environment than the methods described in clauses (i) - (iv) of this subparagraph, in accordance with the provisions of §334.43 of this title (relating to Variances and Alternative Procedures).

(B) Repairs or corrective action. If the results of the tank integrity assessment (required by subparagraph (A) of this paragraph) indicate that the existing tank is not structurally sound and/or that a release of regulated substances has occurred, then the owner and operator shall:

(i) comply with the applicable release reporting, investigation, and corrective action requirements of Subchapter D of this chapter (relating to Release Reporting and Corrective Action); and

(ii) conduct one of the following activities, as applicable:

(I) perform appropriate repairs or relining of the tank, in accordance with the applicable requirements of §334.52 of this title, as necessary to restore the structural integrity of the tank; or

(II) permanently remove the tank from service in accordance with the applicable provisions in §334.55 of this title.

(C) Field-installed cathodic protection system. After confirmation or restoration of the structural integrity of the tank, all underground metal components of the UST system, which are not isolated from the surrounding soil, backfill, and groundwater or any other water, and which either do or could convey,

contain, or store regulated substances, shall be equipped with a field-installed cathodic protection system meeting the requirements of §334.49(c)(2) of this title (relating to Corrosion Protection).

(2) Adding spill and overflow prevention equipment. All [No later than December 22, 1994, all] existing USTs shall be equipped with appropriate spill and overflow prevention equipment, in accordance with the provisions in §334.51(b) of this title (relating to Spill and Overflow Prevention and Control).

(3) Adding release detection for UST system piping.

(A) Release detection for pressurized piping. No later than December 22, 1990, all piping in an existing UST system that routinely conveys regulated substances under pressure (i.e., which operates at greater than atmospheric pressure) shall be brought into compliance with the pressurized piping release detection requirements in §334.50(b)(2)(A) of this title.

(B) Release detection for suction piping and gravity-flow piping. All piping in an existing UST system that routinely conveys regulated substances either under suction (i.e., which operates at less than atmospheric pressure) or by gravity-flow shall be brought into compliance with the applicable release detection requirements in §334.50(b)(2)(B) of this title no later than the date on which release

detection is required for the tank to which such piping is connected, as prescribed in paragraph (4) of this subsection.

(4) Adding release detection for tanks.

(A) Except as provided in subparagraph (B) of this paragraph, all tanks at an existing UST system shall be brought into compliance with the tank release detection requirements in §334.50(b)(1) of this title no later than the date specified in the following clauses for the time of installation applicable to such tanks:

(i) December 22, 1989, for tanks where the installation dates are undetermined or unknown;

(ii) December 22, 1989, for tanks installed during 1964 or prior years;

(iii) December 22, 1990, for tanks installed during the years 1965 - 1969, inclusive;

(iv) December 22, 1991, for tanks installed during the years 1970 - 1974, inclusive;

(v) December 22, 1992, for tanks installed during the years 1975 - 1979, inclusive;

(vi) December 22, 1993, for tanks installed during the years 1980 - 1987, inclusive; and

(vii) December 22, 1993, for tanks installed between January 1, 1988, and December 22, 1988, inclusive.

(B) For emergency generator tanks only, the compliance dates prescribed in subparagraph (A)(i) - (v) of this paragraph shall be extended by one year; however, no compliance date shall be extended past December 22, 1993.

(C) When two or more existing tanks are located in a common tank hole, and when the selected method of release detection is either vapor monitoring or groundwater monitoring in accordance with §334.50(d)(5) and (6) of this title, then all such tanks shall be brought into compliance with the applicable release detection requirements of this paragraph no later than the date specified for the oldest tank in such common tank hole.

(c) Additional upgrading requirements for existing hazardous substance UST systems. In addition to the upgrading requirements applicable to all existing UST



systems in subsections (a) and (b) of this section, all existing hazardous substance UST systems (e.g., UST system for which installation has commenced or has been completed on or prior to December 22, 1988) shall be equipped or retrofitted with a secondary containment system and an associated release detection system in accordance with the following provisions.

(1) No later than December 22, 1998, all existing hazardous substance UST systems shall be equipped with a secondary containment system meeting the design, construction, and installation requirements in §334.45(d) of this title and §334.46(f) of this title.

(2) No later than December 22, 1998, all existing hazardous substance UST systems shall be equipped with a release detection system capable of monitoring either the interstitial spaces between the primary and secondary walls of any double-walled UST component, or the spaces between the primary UST component walls and any external liners, as applicable, in accordance with the provisions in §334.50(c) of this title.

(d) A [An] UST system, at a minimum, shall incorporate secondary containment as specified in Texas Water Code, §26.3476, if the UST system is located in an area described in that provision.

(e) Records for upgrading of existing UST systems.

(1) Owners and operators shall maintain all records related to the upgrading of existing UST systems required in this subsection in accordance with the requirements in §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) Owners and operators shall maintain the following records for the operational life of the UST system:

(A) general information related to the tank integrity assessment and cathodic protection requirements in subsection (b) of this section, including:

(i) dates of the tank integrity assessment and cathodic protection installation activities;

(ii) names, addresses, and telephone numbers of the persons conducting the tank integrity assessment and cathodic protection installation activities; and

(iii) copies of all related notifications or reports filed with the agency or others, including:

(I) registration information, as required by §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems); and

(II) installation certification information, as required by §334.8(a) of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems);

(B) as-built drawings (or plans), which have been drawn to scale and in sufficient detail so as to accurately depict and describe the sizes, dimensions, and locations of any UST system components or equipment added or installed on or after September 29, 1989, [the effective date of this subchapter] which are installed pursuant to one of the construction activities included in §334.6(b)(1)(A) of this title (relating to Construction Notification for Underground Storage Tanks (USTs) and UST Systems); and

(C) equipment information for any UST system components or equipment added or installed on or after September 29, 1989, [the effective date of this subchapter] for the purpose of compliance with the upgrading requirements of this section, including manufacturer's [manufacturers] specifications, installation instructions, operating instructions, warranty information, recommended test procedures, and inspection and maintenance schedules.

(3) Owners and operators shall maintain the results of all equipment tests and tank integrity tests required in this section including internal inspections, tank and piping tightness tests, and site assessments, for at least five years after the dates such tests are conducted.

**§334.48. General Operating and Management Requirements.**

(a) Prevention of releases. All owners and operators of underground storage tank (UST) systems shall ensure that the systems are operated, maintained, and managed in a manner that will prevent releases of regulated substances from such systems.

(b) UST system management. UST systems shall be operated, maintained, and managed in accordance with accepted industry practices.

(c) Inventory control. On or after September 29, 1989 [the effective date of this subchapter], regardless of which method of release detection is used for compliance with §334.50 of this title (relating to Release Detection), effective manual or automatic inventory control procedures shall be conducted for all UST systems at retail service stations as defined in §334.2 of this title (relating to Definitions). Such inventory control procedures shall be in accordance with §334.50(d)(1)(B) of this title. Complete

and accurate inventory records shall be maintained in accordance with §334.10 of this title (relating to Reporting and Recordkeeping).

(d) Spill and overflow control. All owners and operators shall ensure that spills and overfills of regulated substances do not occur and that all spill and overflow prevention equipment is properly operated and maintained in accordance with §334.51 of this title (relating to Spill and Overflow Prevention and Control).

(e) Operational requirements for release detection equipment. Owners and operators of all new and existing UST systems shall ensure that all release detection equipment installed as part of a UST system pursuant to §334.50 of this title is maintained in good operating condition and electronic and mechanical components are tested for proper operation in accordance with one of the following: manufacturer's instructions, a code of practice developed by a nationally recognized association or independent testing laboratory, or requirements determined by the executive director to be no less protective of human health and the environment than listed in this subsection [The owner or operator shall also assure that such equipment is routinely inspected and serviced in accordance with the manufacturer's specifications and in a manner that will assure the proper performance, operability, and running condition of the equipment. Where periodic testing and/or monitoring activities are required as part of a specific release detection method under §334.50 of this title, such tests

and/or monitoring activities shall be performed at the prescribed times and/or frequencies].

(1) Beginning on January 1, 2021, a test of the proper operation of release detection equipment must be performed at least annually and, at a minimum, as applicable to the facility, cover the following components and criteria:

(A) automatic tank gauge and other controllers: test alarm, verify system configuration, and test battery backup;

(B) probes and sensors: inspect for residual buildup, ensure floats move freely, ensure shaft is not damaged; ensure cables are free of kinks and breaks, and test alarm operability and communication with controller;

(C) automatic line leak detector: test operation to meet criteria in §334.50(b)(2)(A)(i) of this title by simulating a leak;

(D) vacuum pumps and pressure gauges: ensure proper communication with sensors and controller; and

(E) hand-held electronic sampling equipment associated with groundwater and vapor monitoring: ensure proper operation.

(2) The code of practice that may be used to comply with paragraph (1) of this subsection is: Petroleum Equipment Institute (PEI) Publication RP1200, "Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities."

(f) Operation requirements for corrosion protection systems. All owners and operators of UST systems shall ensure [assure] that all required UST system components are continuously protected from corrosion, and that all corrosion protection systems are inspected and tested, in accordance with the applicable provisions of §334.49 of this title (relating to Corrosion Protection).

(g) Periodic testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping and periodic inspection of overfill prevention equipment.

(1) Owners and operators of UST systems with spill and overfill prevention equipment and containment sumps used for interstitial monitoring of piping must meet these requirements to ensure the equipment is operating properly and will prevent releases to the environment:

(A) Spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) and containment sumps used for interstitial monitoring of piping must prevent releases to the environment by meeting one of the following:

(i) The equipment is double-walled and the integrity of both walls is periodically monitored at a frequency not less than the frequency of the walkthrough inspections described in subsection (h) of this section. Owners and operators must begin meeting the requirements in clause (ii) of this subparagraph and conduct a test within 30 days of discontinuing periodic monitoring of this equipment;  
or

(ii) The spill prevention equipment and containment sumps used for interstitial monitoring of piping are tested at least once every three years to ensure the equipment is liquid tight by using vacuum, pressure, or liquid testing in accordance with one of the following criteria:

(I) requirements developed by the manufacturer;

(II) code of practice developed by a nationally recognized association or independent testing laboratory; or



(III) low liquid level test method - the sump may be tested by filling the sump with liquid to a level that is three inches higher than the activation point of the sensor provided the following conditions are met:

(-a) the sensor is mounted and maintained at the lowest point of the sump in accordance with the requirements in §334.45(d)(1)(E)(vi) of this title (relating to Technical Standards for New Underground Storage Tank Systems);

(-b) the sensor is annually tested for functionality in accordance with the requirements in subsection (e)(1)(B) of this section;

(-c) the sensor is calibrated to activate a positive shutdown of:

(-1) the individual dispenser associated with that sump; or

(-2) submersible turbine pump associated with that sump; and

(-d-) all on-site operators are trained to immediately notify the appropriate A or B level operator of the shutdown; or

(IV) requirements determined by the executive director to be no less protective of human health and the environment than the requirements listed in subclauses (I) - (III) of this clause.

(iii) Liquids that are used for testing as described in clause (ii) of this subparagraph may be reused for further liquid testing in other sumps, either at the same facility or at other facilities. Prior to discharge or disposal, the liquid must be analyzed to determine whether the discharge can be made in compliance with the applicable wastewater discharge permit or if the liquid must be disposed of in accordance with Chapters 330 or 335 of this title (relating to Municipal Solid Waste and Industrial Solid Waste and Municipal Hazardous Waste).

(B) Overfill prevention equipment must be inspected at least once every three years. At a minimum, the inspection must ensure that overfill prevention equipment is set to activate at the correct level specified in §334.51(b)(2)(C) of this title and will activate when a regulated substance reaches that level.

(C) Codes of practice. The following code of practice may be used to comply with subparagraphs (A)(ii)(II) and (B) of this paragraph: PEI Publication

RP1200, "Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities."

(2) Implementation dates. Owners and operators shall meet these requirements:

(A) UST systems in use on or before the September 1, 2018:

(i) The requirements listed in paragraph (1) of this subsection shall apply on January 1, 2021.

(ii) Initial spill prevention equipment and containment sump testing, and overfill prevention inspections (relating to the requirements in paragraph (1) of this subsection) shall be conducted by January 1, 2021.

(B) UST systems brought into use after September 1, 2018.

(i) The requirements listed in paragraph (1) of this subsection shall apply on the date the UST system was brought into use.

(ii) Initial spill prevention equipment and containment sump testing, and overflow prevention inspections shall be conducted by the date the UST system was brought into use.

(3) Owners and operators shall maintain records as follows (in accordance with §334.10(b)(2)(B) of this title) for spill prevention equipment, containment sumps used for interstitial monitoring of piping, and overflow prevention equipment.

(A) All records of testing and inspection must be maintained for five years.

(B) For spill prevention equipment and containment sumps used for interstitial monitoring of piping not tested every three years, documentation showing that the prevention equipment is double-walled and the integrity of both walls is periodically monitored must be maintained for as long as the equipment is periodically monitored.

(h) Periodic operation and maintenance walkthrough inspections. To properly operate and maintain UST systems, not later than January 1, 2021, owners and operators must meet one of the following.

(1) Conduct a walkthrough inspection that, at a minimum, checks the following equipment as specified in the following subparagraphs.

(A) Every 30 days (exception: spill prevention equipment at UST systems receiving deliveries at intervals greater than every 30 days may be checked prior to each delivery).

(i) Spill prevention equipment. Visually check for damage; remove any liquid or debris found within 96 hours and properly dispose of the liquid or debris; check for and remove obstructions in the fill pipe; check the fill cap to make sure it is securely on the fill pipe; and, for double-walled spill prevention equipment with interstitial monitoring, check for leaks in the interstitial area.

(ii) Release detection equipment. Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, or the unexplained presence of water in the tank) and ensure records of release detection testing are reviewed and current.

(B) Annually.

(i) Any containment sump installed on or after January 1, 2009, and any containment sump used for interstitial monitoring. Visually check for damage, leaks to the containment area, or releases to the environment; remove liquid or debris found in the containment sump within 96 hours of discovery and properly dispose of the liquid or debris; and, for double walled sumps with interstitial monitoring, check for a leak in the interstitial area.

(ii) Containment sumps installed before January 1, 2009, and are not used for interstitial monitoring of piping. Visually check for damage to equipment within the sump, visually check for regulated substance releases in the containment sump and to the environment, visually check for the presence of cathodic protection if the sump contains water that is in contact with metal components that routinely contain product, and remove any debris.

(iii) Submersible turbine pump and under dispenser areas that do not have containment sumps. Visually check for damage to the equipment within the area, visually check for regulated substance releases to the environment, visually check for the presence of cathodic protection if any metal components that routinely contain product are in contact with soil or water, and remove any debris.

(iv) Hand held release detection equipment. Check devices, such as tank gauge sticks or groundwater bailers, for operability and serviceability.

(2) Conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that checks equipment in the same manner and frequency as requirements in paragraph (1) of this subsection. The following code of practice may be used to comply with this subsection: PEI Recommended Practice RP 900, "Recommended Practices for the Inspection and Maintenance of UST Systems."

(i) Airport hydrant systems. In addition to the periodic walkthrough inspection requirements in subsection (h) of this section, owners and operators must inspect the following areas at least once every 30 days if confined space entry according to the Occupational Safety and Health Administration (see 29 Code of Federal Regulations §1910) is not required or at least annually if confined space entry is required and keep documentation of the inspection in accordance with §334.10(b) of this title.

(1) Hydrant pits. Visually check for any damage, remove any liquid or debris, and check for any leaks; and

(2) Hydrant piping vaults. Check for any hydrant piping leaks.

(j) [(g)] Operation and maintenance records. Owners and operators shall maintain records relating to the operation and maintenance of a UST system (including records related to inspection, servicing, testing, and inventory control) as prescribed in this section for at least five years, and such records shall be maintained in accordance with §334.10(b) of this title. Inspection records must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

**§334.49. Corrosion Protection.**

(a) General requirements.

(1) Owners and operators of underground storage tank (UST) systems (or underground metal UST system components) which are required to be protected from corrosion shall comply with the requirements in this section to ensure that releases due to corrosion are prevented.

(2) All corrosion protection systems shall be designed, installed, operated, and maintained in a manner that will ensure that corrosion protection will be continuously provided to all underground metal components of the UST system.



(3) Any alternative methods for corrosion protection or variances from the requirements of this section are prohibited, except when reviewed and approved by the agency pursuant to procedures for variances found in §334.43 of this title (relating to Variances and Alternative Procedures).

(4) Corrosion protection in accordance with the provisions of this section shall be provided to all underground and/or totally or partially submerged metal components of any existing or new UST system which are designed or used to convey, contain, or store regulated substances, including, but not limited to, the tanks, piping (including valves, fittings, flexible connectors, swing joints, and impact/shear valves), and also to other underground metal components associated with a [an] UST system, including but not limited to, secondary containment devices, manways, manholes, fill pipes, vent lines, submersible pump housings, spill containers, and riser pipes.

(5) For internal corrosion protection, the interior bottom surface of new metal tanks installed on or after September 29, 1989, shall be fitted with a striker plate under all fill, gauge, and monitoring openings.

(6) When provisions of this subsection require compliance with a specific code or standard of practice developed by a nationally recognized association or independent testing laboratory, the most recent version of the referenced code in effect at the time of the regulated UST activity shall be applicable.

(7) For a [an] UST system to be placed temporarily out of service, the owner or operator must comply with the requirements of §334.54(c) of this title (relating to Temporary Removal from Service).

(b) Allowable corrosion protection methods. All components of a [an] UST system which are designed to convey, contain, or store regulated substances shall be protected from corrosion by one or more of the following methods.

(1) The component may be constructed of a noncorrodible material which is compatible with the stored regulated substance(s).

(2) The component may be electrically isolated from the corrosive elements of the surrounding soil, backfill, groundwater or any other water, and from other metallic components by installing the component in an open area (e.g., manway, sump, vault, pit, etc.) where periodic visual inspection of all parts of the component for the presence of corrosion or released substances is practicable.

(3) The component may be electrically isolated from the corrosive elements of the surrounding soil, backfill, groundwater or any other water, and from other metallic components by completely enclosing the component in a secondary containment device (e.g., wall, jacket, or liner), provided that:

(A) the secondary containment device is designed and installed in accordance with the applicable technical and installation standards in §334.45(d) of this title (relating to Technical Standards for New Underground Storage Tank Systems) and §334.46(f) of this title (relating to Installation Standards for New Underground Storage Tank Systems), and in accordance with an applicable code or standard of practice developed by a nationally recognized association or independent testing laboratory, and is either:

(i) constructed of a noncorrodible material which is compatible with the stored regulated substance;

(ii) electrically isolated from the protected component and other metallic components; or

(iii) cathodically protected by either a factory-installed or field-installed cathodic protection system meeting the applicable requirements of subsection (c) of this section; and

(B) the interstitial space between the protected component and the secondary containment device shall be free of any soil, backfill material, groundwater or any other water, or other substances, and the protected component shall be

regularly inspected and tested for electrical isolation in accordance with the provisions in subsection (d)(1) of this section.

(4) Tanks (only) may be factory-constructed either as a steel/fiberglass-reinforced plastic composite tank, or as a steel tank with a bonded fiberglass-reinforced plastic external cladding or laminate, or as a steel tank with a bonded fiberglass reinforced polyurethane coating, as a steel tank with a bonded polyurethane external coating, or as a steel tank completely contained within a nonmetallic external tank jacket in accordance with the requirements in §334.45(b)(1)(D), (E), or (F) of this title, as applicable.

(5) The component may be coated with a suitable dielectric material, equipped with appropriate dielectric fittings for electrical isolation, and equipped with either:

(A) a factory-installed cathodic protection system meeting the requirements of subsection (c)(1) of this section; or

(B) a field-installed cathodic protection system meeting the requirements of subsection (c)(2) of this section.

(6) Except for the tanks and the piping system components, other underground components of a UST system (including vent lines, fill risers, spill containment vessels, and tank fittings (e.g., bung hole plugs)) which do not routinely contain regulated substances may be protected from corrosion by thorough coating or wrapping with a suitable dielectric material which is compatible with the stored regulated substance without the need for the use of other corrosion protection methods.

(7) Corrosion protection in accordance with the requirements of this subchapter is not required if it is determined by a corrosion specialist that corrosion protection of an underground metal UST system or UST system component is unnecessary because the site is not corrosive enough to cause a release due to corrosion for the operational life of the UST system. The upgrade or repair of an existing corrosion protection system for an underground metal UST system or UST system component is not required if it is determined by a corrosion specialist that said upgrading or repair is unnecessary and that the protection provided by the existing corrosion protection system is sufficient to prevent a release due to corrosion for the operational life of the UST system. In either case, the determination of the corrosion specialist must be made in writing, must be signed by the corrosion specialist (corrosion specialist must also seal the written determination if he or she is a qualified duly licensed professional engineer in Texas), and must be maintained by the owner and operator as part of the records for the facility in keeping with the requirements of

subsection (e) of this section and §334.10(b) of this title (relating to Reporting and Recordkeeping).

(c) Cathodic protection systems.

(1) Factory-installed cathodic protection systems.

(A) A factory-installed cathodic protection system on any UST component shall be designed, fabricated, installed, operated, and maintained in accordance with applicable codes or standards of practice developed for such cathodic protection method by a nationally recognized association or independent testing laboratory.

(B) At a minimum, the factory-installed cathodic protection system shall include the following components:

(i) a suitable dielectric external coating or laminate, which shall thoroughly cover all exterior surfaces exposed to the soil, backfill, or groundwater or any other water, and which shall consist of materials which are compatible with the stored regulated substances;

(ii) dielectric isolation bushings, connections, or fittings, which shall be installed at all locations where the protected component connects to other metallic system components, and which shall be constructed of materials which are compatible with the stored regulated substances; and

(iii) sacrificial anodes which are firmly attached and electrically connected to the protected components and which are positioned and sized to provide complete cathodic protection for all parts of the protected component.

(2) Field-installed cathodic protection systems.

(A) A field-installed cathodic protection system on any UST system component shall be designed by a qualified corrosion specialist, and shall be designed, installed, operated, and maintained in accordance with applicable codes or standards of practice developed for such cathodic protection systems by a nationally recognized association or independent testing laboratory.

(B) Impressed current cathodic protection systems shall be designed and equipped with appropriate equipment or devices capable of indicating the operational status of the system at all times.

(C) In addition to the standard inspection and testing requirements for all cathodic protection systems required in paragraph (4) of this subsection, all impressed current cathodic protection systems shall be regularly inspected by the owner or operator (or the owner's designated representative) to ensure that the rectifier and other system components are operating properly. Such inspections shall be performed at least once every 60 days.

(3) Test stations and connections. To allow for the periodic testing required in paragraph (4) of this subsection, any factory-installed or field-installed cathodic protection system shall include appropriate connections, insulated lead wires, and accessible test stations. All lead wires connected to the tanks, anodes, reference electrodes, and other components associated with the cathodic protection system shall terminate at one or more test stations. The termination of each lead wire at a test station shall be clearly labeled or coded to properly identify the specific component to which it is connected.

(4) Inspection and testing requirements for all cathodic protection systems.

(A) Except as provided in subsection (d)(2) of this section, all cathodic protection systems which are used to provide corrosion protection for any component of a UST system shall be inspected and tested to determine the adequacy



of the cathodic protection by a qualified corrosion specialist or corrosion technician in accordance with the requirements in this paragraph.

(B) The inspection and testing criteria used to determine the adequacy of the cathodic protection shall be in accordance with a code or standard of practice developed by a nationally recognized corrosion association or independent testing laboratory, such as: [.]

(i) NACE International Test Method TM 0101, "Measurement Techniques Related to Criteria for Cathodic Protection of Underground Storage Tank Systems or Submerged Metallic Tank Systems;"

(ii) NACE International Test Method TM0497, "Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems;"

(iii) Steel Tank Institute Recommended Practice R051, "Cathodic Protection Testing Procedures for sti-P3 USTs;"

(iv) NACE International Standard Practice SP 0285, "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection;" or

(v) NACE International Standard Practice SP 0169, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems."

(C) All cathodic protection systems shall be inspected and tested for operability and adequacy of protection within three to six months after installation and at a subsequent frequency of at least once every three years.

(d) Requirements for other corrosion protection methods.

(1) Electrically isolated components.

(A) Except for jacketed tanks meeting the requirements of §334.45(b)(1)(F) of this title, any metal component of a [an] UST system which is protected from corrosion by one of the electrical isolation methods described in subsection (b)(2) and (3) of this section, and which is not equipped with a cathodic protection system, shall be periodically inspected and tested to ensure that the metal component remains electrically isolated from the surrounding soil, backfill, groundwater or any other water, and from other metal components in accordance with one or more of the following procedures.

(i) When visual inspection is possible, the entire exterior surface of such component may be thoroughly inspected visually by qualified personnel for the presence of corrosion or released regulated substances.

(ii) If visual inspection is not possible, the component may be inspected and tested by a qualified corrosion technician or by a qualified corrosion specialist by taking structure to soil voltage readings in accordance with procedures established by a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(iii) The component may be inspected and/or tested by an alternative method which has been reviewed and determined by the agency to ascertain electrical isolation and to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and safety and the environment than the methods described in clauses (i) and (ii) of this subparagraph, in accordance with the procedures in §334.43 of this title.

(B) The inspections and tests required in subparagraph (A) of this paragraph shall be conducted within three to six months after installation of the metal component, and then once every three years thereafter for the remaining operational life of the UST system.

(C) If the tests required in subparagraph (A) of this paragraph indicate that the metal component is no longer electrically isolated from the surrounding soil, backfill, groundwater or any other water, or from other metal components, a qualified corrosion specialist shall review the test results and thoroughly inspect the area of the metal component to ascertain the extent of electrical isolation and corrosion protection for the component.

(D) If the qualified corrosion specialist determines that the metal component is no longer adequately protected from corrosion, the owner or operator shall assure that one or more of the following procedures are completed within 60 days of the date of such determination:

(i) appropriate repairs or modifications shall be made to restore the electrical isolation of the protected component; or

(ii) a field-installed cathodic protection system meeting the requirements of subsection (c)(2) of this section shall be installed.

(2) Dual-protected tanks. If a steel/fiberglass-reinforced plastic composite tank, a steel tank with a bonded fiberglass-reinforced plastic external cladding or laminate, a steel tank with a bonded fiberglass reinforced polyurethane coating, or a steel tank with a bonded polyurethane coating is also equipped with a factory-installed

cathodic protection system, then the normal inspection and testing requirements for cathodic protection systems in subsection (c)(4) of this section may be waived. This paragraph shall be applicable only to tanks meeting the design and construction requirements in §334.45(b)(1)(D) or (E) of this title, as applicable, and when such tanks are fitted with factory-installed cathodic protection systems meeting the requirements of subsection (c)(1) of this section.

(e) Corrosion protection records.

(1) Owners and operators shall maintain all corrosion protection records required in this subsection in accordance with the requirements in §334.10(b) of this title.

(2) Owners and operators shall maintain records adequate to demonstrate compliance with the corrosion protection requirements in this section, and in accordance with the following minimum requirements.

(A) All appropriate installation records related to the corrosion protection system, as listed in §334.46(i) of this title, shall be maintained for as long as the corrosion protection system is used, including:

(i) the name, address, telephone number, and corrosion protection credentials of either the company which designed the factory-installed cathodic protection system or the corrosion specialist who designed the field-installed cathodic protection system, as applicable;

(ii) drawings or plans depicting the locations of all cathodic protection system components, including the locations of all test stations; and

(iii) operating instructions and warranty information, maintenance schedules, and testing procedures for all operational components of the cathodic protection systems.

(B) The following corrosion protection records shall be maintained for at least five years after the applicable test or inspection is conducted:

(i) results of all tests and inspections of any impressed current cathodic protection system conducted in accordance with subsection (c)(2)(C) of this section; and

(ii) results of all tests and inspections of the adequacy of any cathodic protection system conducted in accordance with subsection (c)(4) of this section; and

(iii) results of all tests and inspections to assure corrosion protection for electrically isolated components in accordance with subsection (d)(1) of this section.

**§334.50. Release Detection.**

(a) General requirements.

(1) Owners and operators of new and existing underground storage tank (UST) systems shall provide a method, or combination of methods, of release detection which shall be:

(A) capable of detecting a release from any portion of the UST system which contains regulated substances including the tanks, piping, and other underground ancillary equipment;

(B) installed, calibrated, operated, maintained, utilized, and interpreted (as applicable) in accordance with the manufacturer's and/or methodology provider's specifications and instructions consistent with the other requirements of this section, and by personnel possessing the necessary experience, training, and competence to accomplish such requirements; and

(C) capable of meeting the particular performance requirements of such method (or methods) as specifically prescribed in this section, based on the performance claims by the equipment manufacturer or methodology provider/vendor, as verified by third-party evaluation conducted by a qualified independent testing organization, using applicable United States Environmental Protection Agency protocol, provided that the following additional requirements shall also be met.

(i) Any performance claims, together with their bases or methods of determination including the summary portion of the independent third-party evaluation, shall be obtained by the owner and/or operator from the equipment manufacturer, methodology provider, or installer and shall be in writing.

(ii) When any of the following release detection methods are used on or after December 22, 1990 (except for methods permanently installed and in operation prior to that date), such method shall be capable of detecting the particular release rate or quantity specified for that method such that the probability of detection shall be at least 95% and the probability of false alarm shall be no greater than 5.0%:

(I) tank tightness testing, as prescribed in subsection (d)(1)(A) of this section;

(II) automatic tank gauging, as prescribed in subsection (d)(4) of this section;



(III) automatic line leak detectors for piping, as prescribed in subsection (b)(2)(A)(i) of this section;

(IV) piping tightness testing, as prescribed in subsection (b)(2)(A)(ii)(I) of this section;

(V) electronic leak monitoring systems for piping, as prescribed in subsection (b)(2)(A)(ii)(III) of this section; and

(VI) statistical inventory reconciliation (SIR), as prescribed in subsection (d)(9) of this section.

(2) When a release detection method operated in accordance with the particular performance standards for that method indicates that a release either has or may have occurred, the owners and operators shall comply with the applicable release reporting, investigation, and corrective action requirements in Subchapter D of this chapter (relating to Release Reporting and Corrective Action).

(3) Owners and operators of all UST systems shall comply with the release detection requirements of this section in accordance with the applicable schedules in §334.44 of this title (relating to Implementation Schedules).

(4) As prescribed in §334.47(a)(2) of this title (relating to Technical Standards for Existing Underground Storage Tank Systems), any existing UST system that cannot be equipped or monitored with a method of release detection that meets the requirements of this section shall be permanently removed from service in accordance with the applicable procedures in §334.55 of this title (relating to Permanent Removal from Service) no later than 60 days after the implementation date for release detection as prescribed by the applicable schedules in §334.44 of this title.

(5) Any owner or operator who plans to install a release detection method for a UST system shall comply with the applicable construction notification requirements in §334.6 of this title (relating to Construction Notification for Underground Storage Tanks (USTs) and UST Systems), and upon completion of the installation of such method shall also comply with the applicable registration and certification requirements of §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems) and §334.8 of this title (relating to Certification for Underground Storage Tanks (USTs) and UST Systems).

(6) Any equipment installed or used for conducting release detection for a UST system shall be listed, approved, designed, and operated in accordance with standards developed by a nationally recognized association or independent testing laboratory (e.g., Underwriters Laboratories, Inc. [UL]) for such installation or use, as specified in §334.42(d) of this title (relating to General Standards).

(7) For a UST system to be placed temporarily out-of-service, the owner or operator must comply with the requirements of §334.54(c) of this title (relating to Temporary Removal from Service).

(b) Release detection requirements for all UST systems. Owners and operators of all UST systems shall ensure that release detection equipment or procedures are provided in accordance with the following requirements.

(1) Release detection requirements for tanks.

(A) Tanks installed prior to January 1, 2009. Except as provided in subparagraph [subparagraphs (B) and] (C) of this paragraph and in subsection (d)(9) of this section, all such tanks shall be monitored in a manner which will detect a release at a frequency of at least once every 30 days [month (not to exceed 35 days between each monitoring)] by using one or more of the release detection methods described in subsection (d)(4) - (10) of this section[)].

(B) Tanks installed on or after January 1, 2009. All such tanks shall be monitored in a manner which will detect a release at a frequency of at least once every 30 days by using interstitial monitoring release detection method prescribed in subsection (d)(7) of this section no later than September 1, 2018.

(C) The manual tank gauging method of release detection, as described in subsection (d)(2) of this section, may be used as the sole release detection system for tanks with a nominal capacity of 1,000 gallons or fewer only.

(D) 30-day monthly tank gauging method of release detection, as described in subsection (d)(3) of this section, may be used as the sole release detection method for emergency generator tanks only.

[(B) A combination of tank tightness testing and inventory control in accordance with subsection (d)(1) of this section may be used as an acceptable release detection method for tanks only until December 22, 1998, and the required frequency of the tank tightness test shall be based on the following criteria.]

[(i) A tank tightness test shall be conducted at least once each year for any tank in an existing UST system which is not being operated in violation of the upgrading or replacement schedule in §334.44(b) of this title, but has not yet been either:]

[(I) replaced with a UST system meeting the applicable technical and installation standards in §334.45 of this title (relating to Technical Standards for New Underground Storage Tank Systems) and §334.46 of this

title (relating to Installation Standards for New Underground Storage Tank Systems);  
or]

[II) retrofitted or equipped in accordance with the minimum upgrading requirements applicable to existing UST systems in §334.47 of this title.]

[(ii) A tank tightness test shall be conducted at least once every five years for any tank in a UST system which has been either:]

[(I) installed in accordance with the applicable technical standards for new UST systems in §334.45 and §334.46 of this title; or]

[(II) retrofitted or equipped in accordance with the minimum upgrading requirements applicable to existing UST systems in §334.47 of this title.]

[(C)The manual tank gauging method of release detection, as prescribed in subsection (d)(2) of this section, may be used as the sole release detection system only for a petroleum substance tank with a nominal capacity of 1,000 gallons or less. The monthly tank gauging method of release detection, as prescribed

in subsection (d)(3) of this section, may be used as the sole release detection system only for emergency generator tanks.]

[D] In addition to the requirements in subparagraphs (A) - (C) of this paragraph, any tank in a hazardous substance UST system shall also be equipped with a secondary containment system and related release detection equipment, as prescribed in subsection (c) of this section.]

(2) Release detection for piping. Piping in a UST system shall be monitored in a manner which will detect a release from any portion of the piping system, in accordance with the following requirements.

(A) Requirements for pressurized piping. UST system piping that conveys regulated substances under pressure shall be in compliance with the following requirements.

(i) Each separate pressurized line (except for lines utilized in airport hydrant systems) shall be equipped with an automatic line leak detector meeting the following requirements.

(I) The line leak detector shall be capable of detecting any release from the piping system of three gallons per hour when the piping pressure is at ten pounds per square inch.

(II) The line leak detector shall be capable of alerting the UST system operator of any release within one hour of occurrence either by shutting off the flow of regulated substances, or by substantially restricting the flow of regulated substances.

(III) The line leak detector shall be tested at least once per year for performance and operational reliability and shall be properly calibrated and maintained, in accordance with the manufacturer's specifications and recommended procedures.

(ii) Piping installed prior to January 1, 2009. In addition to the required line leak detector prescribed in clause (i) of this subparagraph, each pressurized line shall also be tested or monitored for releases in accordance with at least one of the following methods.

(I) The piping may be tested at least once per year by means of a piping tightness test conducted in accordance with a code or standard of practice developed by a nationally recognized association or independent testing

laboratory. Any such piping tightness test shall be capable of detecting any release from the piping system of 0.1 gallons per hour when the piping pressure is at 150% of normal operating pressure.

(II) Except as provided in subsection (d)(9) of this section, the piping may be monitored for releases at least once every 30 days [month (not to exceed 35 days between each monitoring)] by using one or more of the release detection methods prescribed in subsection (d)(5) - (10) of this section.

(III) The piping may be monitored for releases at least once every 30 days [month (not to exceed 35 days between each monitoring)] by means of an electronic leak monitoring system capable of detecting any release from the piping system of 0.2 gallons per hour at normal operating pressure.

(iii) Piping installed or replaced on or after January 1, 2009. In addition to the required line leak detector prescribed in clause (i) of this subparagraph, each pressurized line shall also be tested or monitored for releases at least once every 30 days by using the interstitial monitoring release detection method prescribed in subsection (d)(7) of this section no later than September 1, 2018.

(B) Requirements for suction piping and gravity flow piping.



(i) Piping installed prior to January 1, 2009. Except as provided in clause (iii) [(ii)] of this subparagraph, each separate line in a UST piping system that conveys regulated substances either under suction or by gravity flow shall meet at least one of the following requirements.

(I) Each separate line may be tested at least once every three years by means of a positive or negative pressure tightness test applicable to underground product piping and conducted in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory. Any such piping test shall be capable of detecting any release from the piping system of 0.1 gallons per hour.

(II) Each line may be monitored for releases at least once every 30 days [month (not to exceed 35 days between each monitoring)] by using one or more of the release detection methods prescribed in subsection (d)(5) - (10) of this section.

(ii) Piping installed or replaced on or after January 1, 2009.  
Except as provided in clause (iii) of this subparagraph, each suction line shall be tested or monitored for releases at least once every 30 days by using the interstitial monitoring release detection method prescribed in subsection (d)(7) of this section no later than September 1, 2018.

(iii) [(ii)] No release detection methods are required to be installed or applied for any piping system that conveys regulated substances under suction when such suction piping system is designed and constructed in accordance with the following standards:

(I) the below-grade piping operates at less than atmospheric pressure;

(II) the below-grade piping is sloped so that all the contents of the pipe will drain back into the storage tank if the suction is released;

(III) no more than [only] one check valve is included in each suction line;

(IV) the check valve is located aboveground, directly below and as close as practical to the suction pump; and

(V) verification that the requirements under subclauses (I) - (IV) of this clause have been met can be provided in the form of:

(-a-) signed as-built drawings or plans provided by the installer or by a professional engineer who is duly licensed to practice in Texas; or

(-b-) signed written documentation provided by a UST contractor who is properly registered with the agency, by a UST installer who is properly licensed with the agency, or by a professional engineer who is duly licensed to practice in Texas.

(C) Monitoring secondary containment. In addition to the requirements in subparagraphs (A) and (B) of this paragraph, all piping in a hazardous substance UST system shall also be equipped with a secondary containment system and related release detection equipment, as prescribed in subsection (c) of this section.

(c) Additional release detection requirements for hazardous substance UST systems. In addition to the release detection requirements for all UST systems prescribed in subsections (a) and (b) of this section, owners and operators of all hazardous substance UST systems shall also assure compliance with the following additional requirements.

(1) All new hazardous substance UST systems shall be in compliance with the requirements of paragraph (3) of this subsection for the entire operational life of the system.

(2) All existing hazardous substance UST systems shall be brought into compliance with the requirements of paragraph (3) of this subsection no later than December 22, 1998.

(3) Secondary containment [and monitoring].

[A] All hazardous substance UST systems (including tanks and piping) shall be equipped with a secondary containment system which shall be designed, constructed, installed, and maintained in accordance with §334.45(d) and §334.46(f) of this title (relating to Technical Standards for New Underground Storage Tank Systems; and Installation Standards for New Underground Storage Tank Systems).

(4) Release detection.

(A) [(B)] All hazardous substance UST systems (including tanks and piping) installed prior to January 1, 2009, shall include one or more of the release detection methods or equipment prescribed in subsection (d)(7) - (10) of this section,

which shall be capable of monitoring the space between the primary tank and piping walls and the secondary containment wall or barrier.

(B) All hazardous substance UST systems (including tanks and piping) installed on or after January 1, 2009, shall be monitored by using the interstitial monitoring release detection method prescribed in subsection (d)(7) of this section no later than September 1, 2018.

(d) Allowable methods of release detection. Tanks in a UST system may be monitored for releases using one or more of the methods included in paragraphs (2) - (10) of this subsection. Piping in a UST system may be monitored for releases using one or more of the methods included in paragraphs (5) - (10) of this subsection. Any method of release detection for tanks and/or piping in this section shall be allowable only when installed (or applied), operated, calibrated, and maintained in accordance with the particular requirements specified for such method in this subsection.

(1) Tank tightness [testing] and inventory control requirements. A combination of tank tightness testing and inventory control may be used as a tank release detection method only until December 22, 1998, subject to the following conditions and requirements.

(A) Tank tightness test. Any tank tightness test shall be conducted in conformance with the following standards.

(i) The tank tightness test shall be conducted in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(ii) The tank tightness test shall be performed by qualified personnel who possess the requisite experience, training, and competence to conduct the test properly, who are present at the facility and who maintain responsible oversight throughout the entire testing procedure, and who have been certified by the manufacturer or developer of the testing equipment as being qualified to perform the test. The tank tightness test shall be conducted in strict accordance with the testing procedures developed by the system manufacturer or developer.

(iii) The tank tightness test shall be capable of detecting a release of 0.1 gallons per hour from any portion of the tank which contains regulated substances.

(iv) The tank tightness test shall be performed in a manner that will account for the effects of vapor pockets, thermal expansion or contraction of the stored substance, temperature of the stored substance, temperature stratification,

evaporation or condensation, groundwater elevation, pressure variations within the system, tank end deflection, tank deformation, and any other factors that could affect the accuracy of the test procedures.

(B) Inventory control. All inventory control procedures shall be in conformance with the following requirements.

(i) All inventory control procedures shall be in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory, such as American Petroleum Institute Publication 1621, "Bulk Liquid Stock Control at Retail Outlets;" and [.]

(ii) Reconciliation of detailed inventory control records shall be conducted at least once every 30 days [each month], and shall be sufficiently accurate to detect a release as small as the sum of 1.0% of the total substance flow-through for the 30-day period [month] plus 130 gallons.

(iii) The operator shall assure that the following additional procedures and requirements are followed.

(I) Inventory volume measurement for regulated substance inputs, withdrawals, and the amount still remaining in the tank shall be recorded each operating day.

(II) The equipment used shall be capable of measuring the level of stored substance over the full range of the tank's height to the nearest 1/8 inch.

(III) Substance dispensing shall be metered and recorded within an accuracy of six or less cubic inches for every five gallons of product withdrawn.

(IV) The measurement of any water level in the bottom of the tank shall be made to the nearest 1/8 inch at least once every 30 days [a month], and appropriate adjustments to the inventory records shall be made.

(2) Manual tank gauging. Manual tank gauging may be used as a tank release detection method, subject to the following limitations and requirements.

(A) Manual tank gauging in accordance with this subparagraph may be used as the sole method of tank release detection only for petroleum substance tanks having a nominal capacity of 1,000 gallons or less.



(B) The use of manual tank gauging shall not be considered an acceptable method for meeting the release detection requirements of this section for any tanks with a nominal capacity greater than 1,000 gallons.

(C) When used for compliance with the release detection requirements of this section, the procedures and requirements in the following clauses shall be applicable.

(i) For purposes of this subparagraph only, the following definitions are applicable.

(I) Level measurement--The average of two consecutive liquid level readings from a tank gauge, measuring stick, or other measuring equipment.

(II) Gauging period--A weekly period during which no substance is added to or removed from the tank. The duration of the gauging period is dependent [dependant] upon tank volume and diameter, as specified in clause (v) of this subparagraph.

(III) Weekly deviation--The variation between the level measurements taken at the beginning and the end of one gauging period, converted to and expressed as gallons.

(IV) Monthly deviation--The arithmetic average of four consecutive weekly deviations, expressed as gallons.

(ii) Any measuring equipment shall be capable of measuring the level of stored substance over the full range of the tank's height to the nearest 1/8 inch.

(iii) Separate liquid level measurements in the tank shall be taken weekly at the beginning and the ending of the gauging period, and the weekly deviation shall be determined from such level measurements.

(iv) Once each month, after four consecutive weekly deviations are determined, a monthly deviation shall be calculated.

(v) For the purposes of the manual tank gauging method of release detection, a release shall be indicated when either the weekly deviation or the monthly deviation exceeds the maximum allowable standards indicated in the following subclauses:

(I) for a tank with a capacity of 550 gallons or less (any tank diameter): minimum duration of gauging period = 36 hours; weekly standard = ten gallons; monthly standard = five gallons;

(II) for a tank with a capacity of 551 gallons to 1,000 gallons (when tank diameter is 64 inches): minimum duration of gauging period = 44 hours; weekly standard = nine gallons; monthly standard = four gallons; and

(III) for a tank with a capacity of 551 gallons to 1,000 gallons (when tank diameter is 48 inches): minimum duration of gauging period = 58 hours; weekly standard = 12 gallons; monthly standard = six gallons.

(vi) When either the weekly standard or the monthly standard is exceeded and a suspected release is thereby indicated, the owner or operator shall comply with the applicable release reporting, investigation, and corrective action requirements of Subchapter D of this chapter.

(3) Monthly (every 30 days) tank gauging. Monthly tank gauging may be used as a tank release detection method, subject to the following limitations and requirements.

(A) Monthly tank gauging in accordance with this paragraph may be used as the sole method of tank release detection only for emergency generator tanks.

(B) The use of monthly tank gauging shall not be considered an acceptable method for meeting the release detection requirements of this section for any tanks other than emergency generator tanks.

(C) When used for compliance with the release detection requirements of this section, the procedures and requirements in the following clauses shall be applicable.

(i) For purposes of this subparagraph [paragraph] only, the following definitions are applicable.

(I) Level measurement--The average of two consecutive liquid level readings from a tank gauge, measuring stick, or other manual or automatic measuring equipment.

(II) Gauging period--A period of at least 36 hours during which no substance is added to or removed from the tank.

(III) Monthly deviation--The variation between the level measurements taken at the beginning and the end of one gauging 30-day period, converted to and expressed as gallons.

(ii) Any measuring equipment (whether operated manually or automatically) shall be capable of measuring the level of a stored substance over the full range of the tank's height to the nearest 1/8 inch.

(iii) Separate liquid level measurements in the tank shall be taken at least once every 30 days [monthly] at the beginning and the ending of the gauging period, and the monthly deviation shall be determined from such level measurements.

(iv) For the purposes of the 30-day [monthly] tank gauging method of release detection, a release shall be indicated when the monthly deviation exceeds the maximum allowable standards indicated in the following subclauses:

(I) for a tank with a capacity of 550 gallons or less:  
monthly standard = five gallons;

(II) for a tank with a capacity of 551 gallons to 1,000 gallons: monthly standard = seven gallons;

(III) for a tank with a capacity of 1,001 gallons to 2,000 gallons: monthly standard = 13 gallons; and

(IV) for a tank with a capacity greater than 2,000 gallons: monthly standard = 1.0% of the total tank capacity.

(v) When the monthly standard is exceeded and a suspected release is thereby indicated, the owner or operator shall comply with the applicable release reporting, investigation, and corrective action requirements of Subchapter D of this chapter.

(4) Automatic tank gauging in combination with [and] inventory control.

(A) A combination of automatic tank gauging and inventory control may be used as a tank release detection method, subject to the following requirements.

(i) Inventory control procedures shall be in compliance with paragraph (1)(B) of this subsection.

(ii) The automatic tank gauging equipment shall be capable of:

(I) automatically monitoring the in-tank liquid levels, conducting automatic tests for substance loss, and collecting data for inventory control purposes; and

(II) performing an automatic test for substance loss that can detect a release of 0.2 gallon per hour from any portion of the tank which contains regulated substances.

(iii) The automatic tank gauge testing must be performed with the system operating in one of the following modes:

(I) in-tank static testing conducted at least once every 30 days; or

(II) continuous in-tank leak detection operating on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

(B) For emergency generator tanks and used oil tanks only, automatic tank gauging may be used as a tank release detection method without inventory control, provided that the automatic tank gauging equipment shall be capable of:

(i) automatically monitoring the in-tank liquid levels;

(ii) conducting continuous automatic tests for substance loss during the periods when the emergency generator engine is not in operation; [and]

(iii) performing an automatic test for substance loss that can detect a release of 0.2 gallon per hour from any portion of the tank which contains regulated substances; and

(iv) measuring the water level at the bottom of the tank to the nearest 1/8 of an inch at least once every 30 days.

(5) Vapor monitoring. Equipment and procedures designed to test or monitor for the presence of vapors from the regulated substance (or from a related tracer substance) in the soil gas of the backfilled excavation zone may be used, subject to the following limitations and requirements.



(A) The bedding and backfill materials in the excavation zone shall be sufficiently porous to allow vapors from any released regulated substance (or related tracer substance) to rapidly diffuse through the excavation zone (e.g., gravel, sand, crushed rock).

(B) The stored regulated substance, or any tracer substance placed in the tank system, shall be sufficiently volatile so that, in the event of a substance release from the UST system, vapors will develop to a level that can be readily detected by the monitoring devices located in the excavation zone.

(C) The capability of the monitoring device to detect vapors from the stored regulated substance shall not be adversely affected by the presence of any groundwater, rainfall, and/or soil moisture in a manner that would allow a release to remain undetected for more than 30 days [one month (not to exceed 35 days)].

(D) Any preexisting background contamination in the excavation zone shall not interfere with the capability of the vapor monitoring equipment to detect releases from the UST system.

(E) The vapor monitoring equipment shall be designed to detect vapors from either the stored regulated substance, a component or components of the stored substance, or a tracer substance placed in the UST system, and shall be capable

of detecting any significant increase in vapor concentration above preexisting background levels.

(F) Prior to installation of any vapor monitoring equipment, the site of the UST system (within the excavation zone) shall be assessed by qualified personnel to:

(i) ensure that the requirements in subparagraphs (A) - (D) of this paragraph have been met; and

(ii) determine the appropriate number and positioning of any monitoring [monitor] wells and/or observation wells, so that releases into the excavation zone from any part of the UST system can be detected within 30 days [one month of the release (not to exceed 35 days)].

(G) All monitoring wells and observation wells shall be designed and installed in accordance with the requirements of §334.46(g) of this title.

(6) Groundwater monitoring. Equipment or procedures designed to test or monitor for the presence of regulated substances floating on, or dissolved in, the groundwater in the excavation zone may be used, subject to the following limitations and requirements.

(A) The stored regulated substance shall be immiscible in water and shall have a specific gravity of less than one.

(B) The natural groundwater level shall never be more than 20 feet (vertically) from the ground surface, and the hydraulic conductivity of the soils or backfill between all parts of the UST system and the monitoring points shall not be less than 0.01 centimeters per second (i.e., the soils or backfill shall consist of gravels, coarse to medium sands, or other similarly permeable material).

(C) Any automatic monitoring devices that are employed shall be capable of detecting the presence of at least 1/8 inch of free product on top of the groundwater in the monitoring well or observation well. Any manual monitoring method shall be capable of detecting a visible sheen or other accumulation of regulated substances in, or on, the groundwater in the monitoring well or observation well.

(D) Any preexisting background contamination in the monitored zone shall not interfere with the capability of the groundwater monitoring equipment or methodology to detect releases from the UST system, and the groundwater monitoring equipment or methodology shall be capable of detecting any significant

increase above preexisting background levels in the amount of regulated substance floating on, or dissolved in, the groundwater.

(E) Prior to installation of any groundwater monitoring equipment, the site of the UST system (within and immediately below the excavation zone) shall be assessed by qualified personnel to:

(i) ensure compliance with the requirements of subparagraphs (A) and (B) of this paragraph; and

(ii) determine the appropriate number and positioning of any monitoring wells and/or observation wells, so that releases from any part of the UST system can be detected within 30 days [one month (not to exceed 35 days) of the release].

(F) All monitoring wells and observation wells shall be designed, installed, and maintained in accordance with the requirements in §334.46(g) of this title.

(7) Interstitial monitoring for double-wall or jacketed UST systems. Equipment designed to test or monitor for the presence of regulated substance vapors or liquids in the interstitial space between the inner (primary) and outer (secondary)

walls of a double-wall or jacketed UST system may be used, subject to the following conditions and requirements.

(A) Any double-wall UST system using this method of release detection shall be designed, constructed, and installed in accordance with the applicable technical and installation requirements in §334.45(d) and §334.46(f) of this title.

(B) The sampling, testing, or monitoring method shall be capable of detecting any release of stored regulated substances from any portion of the primary tank or piping within 30 days [one month (not to exceed 35 days)] of the release.

(C) The sampling, testing, or monitoring method shall be capable of detecting a breach or failure in the primary wall and the entrance of groundwater or any other water into the interstitial space due to a breach in the secondary wall of the double-wall or jacketed tank or piping system within 30 days [one month (not to exceed 35 days)] of such breach or failure (whether or not a stored regulated substance has been released into the environment).

(8) Monitoring of UST systems with secondary containment barriers.  
Equipment designed to test or monitor for the presence of regulated substances

(liquids or vapors) in the excavation zone between the UST system and an impermeable secondary containment barrier immediately around the UST system may be used, subject to the following conditions and requirements.

(A) Any secondary containment barrier or liner system at a UST system using this method of release detection shall be designed, constructed, and installed in accordance with the applicable technical and installation requirements in §334.45(d) and §334.46(f) of this title.

(B) The sampling, testing, or monitoring method shall be capable of detecting any release of stored regulated substance from any portion of the UST system into the excavation zone between the UST system and the secondary containment barrier within 30 days [one month (not to exceed 35 days)] of the release.

(C) The sampling, testing, or monitoring method shall be designed and installed in a manner that will ensure that groundwater, soil moisture, and rainfall will not render the method inoperative where a release could remain undetected for more than 30 days [one month (not to exceed 35 days)].

(D) Prior to installation of any secondary containment release monitoring equipment, the site of the UST system shall be assessed by qualified personnel to:

(i) ensure that the secondary containment barrier will be positioned above the groundwater level and outside the designated 25-year floodplain [flood plain], unless the barrier and the monitoring equipment are designed for use under such conditions; and

(ii) determine the appropriate number and positioning of any observation wells.

(E) All observation wells shall be designed and installed in accordance with the requirements in §334.46(g) of this title.

(9) [Statistical inventory reconciliation (SIR)] in combination with [and] inventory control.

(A) A combination of SIR and inventory control may be used as a release detection method for UST system tanks and lines, subject to the following requirements.

(i) Inventory control procedures must be in compliance with paragraph (1)(B) of this subsection.

(ii) The SIR methodology as utilized by its provider or vendor, or by its vendor-authorized franchisee or licensee or representative must: [analyze inventory control records in a manner which can detect a release of 0.2 gallons per hour from any part of the UST system.]

(I) analyze inventory control records in a manner which can detect a release of 0.2 gallons per hour from any part of the UST system;  
and

(II) use a threshold that does not exceed one-half the minimum detectable leak rate.

(iii) The UST system owner and/or operator must take appropriate steps to assure that they receive an [a monthly] analysis report from the entity which actually performs the SIR analysis for the 30-day period (either the SIR provider/vendor or the provider/vendor-authorized franchisee or licensee or representative) in no more than 15 calendar days following the last day of the 30-day period [calendar month] for which the analysis is performed. This analysis report must, at minimum:



(I) state the name of the SIR provider/vendor and the name and version of the SIR methodology which was utilized for the analysis as they are listed in the independent third-party evaluation of that methodology;

(II) state the name of the company and the individual (or the name of the individual if no company affiliation) who performed the analysis, if it was performed by a provider/vendor-authorized franchisee or licensee or representative;

(III) state the name and address of the facility at which analysis is performed and provide a description of each UST system for which analysis has been performed;

(IV) state the date that the analysis was conducted;

(V) [(IV)] quantitatively state in gallons per hour for each UST system being monitored: the leak threshold for the 30-day period [month] analyzed, and the minimum detectable leak rate for the 30-day period [month] analyzed, and the indicated leak rate for the 30-day period and [month analyzed]; and

(VI) [(V)] qualitatively state one of the following for each UST system being monitored: "pass," [or] "fail," or "inconclusive."

(iv) Any UST system analysis report result other than "pass" must be reported to the agency by the UST system owner or operator as a suspected release in accordance with §334.72 of this title (relating to Reporting of Suspected Releases).

(v) Any UST system analysis report result of "inconclusive" which has not been investigated and quantified as a "pass" (in the form of a replacement UST system analysis report meeting the requirements of clause (iii) of this subparagraph) must be reported to the agency as a suspected release within 72 hours of the time of receipt of the inconclusive analysis report result by the UST system owner or operator.

(B) At least once per calendar quarter, the SIR provider/vendor must select at random, at least one of the individual UST system analyses performed by each of its authorized franchisees or licensees or representatives during that period and audit that analysis to assure that provider/vendor standards are being maintained with regard to the acceptability of inventory control record data, the acceptability of analysis procedures, and the accuracy of analysis results. The written result of that audit must be provided to the authorized franchisee or licensee or representative and to the owner and/or operator of the audited UST system(s) by the SIR provider/vendor during that calendar quarter. In addition, within 30 days following each calendar

quarter, the SIR provider/vendor must provide to the agency a list containing the name and address of each of its authorized franchisees or licensees or representatives which specifies for each one, the name and address of each facility at which one or more UST system audits were performed during the previous calendar quarter.

(10) Alternative release detection method. Any other release detection method, or combination of methods, may be used if such method has been reviewed and determined by the agency to be capable of detecting a release from any portion of the UST system in a manner that is no less protective of human health and safety and the environment than the methods described in paragraphs (2) - (9) [(1) - (8)] of this subsection, in accordance with the provisions of §334.43 of this title (relating to Variances and Alternative Procedures).

(e) Release detection records.

(1) Owners and operators shall maintain the release detection records required in this subsection in accordance with the requirements in §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) Owners and operators shall maintain records adequate to demonstrate compliance with the release detection requirements in this section, and in accordance with the following minimum requirements.

(A) All appropriate installation records related to the release detection system, as listed in §334.46(i) of this title, shall be maintained for as long as the release detection system is used.

(B) All written performance claims pertaining to any release detection system used, and documentation of the manner in which such claims have been justified, verified, or tested by the equipment manufacturer, methodology provider/vendor, or independent third-party evaluator shall be maintained for as long as the release detection system is used.

(C) Records of the results of all manual and/or automatic methods of sampling, testing, or monitoring for releases (including tank tightness tests) shall be maintained for at least five years after the sampling, testing, or monitoring is conducted.

(D) Records and calculations related to inventory control reconciliation shall be maintained for at least five years from the date of reconciliation.

(E) Written documentation of all service, calibration, maintenance, and repair of release detection equipment permanently located on-site shall be maintained for at least five years after the work is completed. Any schedules of

required calibration and maintenance provided by the release detection equipment manufacturer shall be retained for as long as the release detection system is used.

(F) Records of site assessments required under subsection (d)(5) and (6) of this section (concerning vapor monitoring and groundwater monitoring) must be maintained for as long as the methods are used. Records of site assessments must be signed by a professional engineer or professional geologist, or equivalent licensed professional with experience in environmental engineering, hydrogeology, or another relevant technical discipline acceptable to the agency.

**§334.51. Spill and Overfill Prevention and Control.**

(a) General spill and overfill control requirements.

(1) Owners and operators of all new and existing underground storage tank (UST) systems shall ensure that releases of regulated substances due to spills and overfills do not occur.

(2) Prior to regulated substances being transferred and deposited into a UST system, the owner or operator shall ensure that the available volume in the tank is greater than the volume of regulated substances to be transferred into the tank.

(3) During the entire time that regulated substances are being transferred into a UST system, the owner or operator shall ensure that the entire transfer operation is continuously monitored by the person conducting the transfer. Except as provided in paragraph (4) of this subsection, such monitoring may be accomplished by either of the following methods.

(A) The person conducting the transfer shall be physically present at or near the transfer point at all times during the transfer operation, and shall have an unobstructed view of the transfer point to observe the transfer and to abate any spill or overflow.

(B) The person conducting the transfer shall be physically present at the facility at all times during the transfer operation, and shall monitor the transfer operation using a central monitoring station which is electronically connected to remote sensing equipment at each transfer point, where such equipment is designed to detect and prevent any spills or overfills.

(4) When USTs are equipped with ball float valves in the vent openings (or with other similar flow restrictors) for the purposes of compliance with the overflow prevention equipment requirements of subsection (b)(2)(C) of this section, and when regulated substances are transferred into such tanks under pressure (other than routine gravity unloading from normal transport vehicles), the following requirements

shall be met during the time that regulated substances are being transferred into the tank.

(A) The person conducting the transfer shall be physically present at or near the transfer point at all times during the transfer operation, and shall have an unobstructed view of the transfer point to observe the transfer and to abate any spill or overflow.

(B) The transfer hose connection shall be equipped with an appropriate back-pressure sensor that will automatically shut off flow into the tank when the pressure in the tank reaches the tank's allowable design pressure (typically five per square inch gauge [psig]).

(5) The owners or operators shall assure that the installation and maintenance of all required spill and overflow prevention equipment, as well as the procedures used for the transfers of regulated substances to or from a [an] UST system, are in accordance with codes or standards of practice developed by a nationally recognized association or independent testing laboratory such as: [as specified in §334.42(d) of this title (relating to General Standards).]

(A) National Fire Protection Association (NFPA) Standard 385, "Standard for Tank Vehicles for Flammable and Combustible Liquids." The transfer

procedures described in NFPA Standard 385 or American Petroleum Institute (API) Recommended Practice 1007, "Loading and Unloading of MC 306/DOT 406 Cargo Tank Motor Vehicles" may be used to comply with this subsection.

(B) API Recommended Practice 1007, "Loading and Unloading of MC 306/DOT 406 Cargo Tank Motor Vehicles," which also may be used to comply with paragraphs (2) and (3) of this subsection; or

(C) API Recommended Practice 1621, "Bulk Liquid Stock Control at Retail Outlets," with further guidance on spill and overfill prevention.

(6) The owner or operator shall assure that all spill and overfill prevention devices installed pursuant to subsection (b) of this section are maintained in good operating condition, and that such devices are inspected and serviced in accordance with the manufacturer's [manufacturers'] specifications. In addition, the devices shall be monitored or tested in accordance with the requirements in §334.48(g) and (h) of this title (relating to General Operating and Management Requirements).

(7) In the event a release of regulated substance(s) occurs due to a spill or overfill, the owner or operator shall comply with the release reporting, investigation, and corrective action requirements in Subchapter D of this chapter (relating to Release Reporting and Corrective Action).



(b) Spill and overflow prevention equipment. Except as provided in paragraph (4) of this subsection, all UST systems shall be equipped with spill and overflow prevention equipment which shall be designed, installed, and maintained in a manner that will prevent any spilling or overflowing of regulated substances resulting from transfers to such systems, as provided in this subsection.

(1) Compliance schedule. All UST systems shall be in compliance with the equipment provisions of this subsection from the time of installation through the entire operational life of the system.

[A] New UST systems installed on or after the effective date of this subchapter shall be in compliance with the equipment provisions of this subsection from the time of installation through the entire operational life of the system.]

[B] Existing UST systems (i.e., UST systems for which installation has commenced or has been completed on or prior to December 22, 1988) shall be in compliance with the equipment provisions of this subsection beginning no later than December 22, 1994, and continuing for the remainder of the operational life of the system.]

(2) Equipment required. UST systems shall be equipped with each of the following spill and overflow prevention equipment or devices.

(A) Tight-fill fitting. The fill pipe of the tank shall be equipped with a tight-fill fitting, adapter, or similar device which shall provide a liquid-tight seal during the transfer of regulated substances into the tank.

(B) Spill containment equipment. The fill tube of the tank either shall be equipped with an attached spill container or catchment basin, or shall be enclosed in a liquid-tight manway, riser, or sump, and such equipment shall meet the following requirements.

(i) The spill containment device shall be designed to prevent the release of regulated substances to the environment when the transfer hose or line is detached from the fill pipe.

(ii) The spill containment device shall be equipped with a liquid-tight lid or cover designed to minimize the entrance of any surface water, groundwater, or other foreign substances into the container.

(C) Overflow prevention equipment. Each tank shall be equipped with a valve or other appropriate device that shall be designed to either:

(i) automatically shut off the flow of regulated substances into the tank when the liquid level in the tank reaches a preset level which shall be no higher than the 95% capacity level for the tank; [or]

(ii) automatically restrict the flow of regulated substances into the tank when the liquid level in the tank reaches a preset level which shall be no higher than the 90% capacity level for the tank, provided that such flow restricting device shall also alert the person responsible for the delivery when such preset level is reached. Flow restrictor devices may not be used when overflow prevention is installed or replaced after September 1, 2018; or

(iii) emit an audible and visible alarm capable of alerting the person responsible for the delivery when the liquid level in the tank reaches a preset level which shall be no higher than the 90% capacity level for the tank, provided that the tank is also equipped with a valve or other device which is designed to automatically shut off or automatically restrict the flow of regulated substances into the tank when the liquid level reaches a preset level which shall be no higher than the 98% capacity level for the tank.

(3) Design and installation requirements.

(A) All spill and overflow prevention equipment shall be installed in accordance with the manufacturer's instructions and a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(B) All underground components of the spill and overflow prevention equipment which are designed to contain regulated substances shall be properly protected from corrosion in accordance with the applicable provisions in §334.49 of this title (relating to Corrosion Protection).

(C) The surfaces of all spill and overflow prevention equipment which are in direct contact with regulated substances shall be constructed of or lined with materials that are compatible with such regulated substances.

(D) When installing the overflow prevention equipment specified in paragraph (2)(C) of this subsection, appropriate extension devices shall be utilized as necessary to assure that the shut-off or restriction of flow into the tank is achieved at the specified preset levels, which shall be based on the manufacturer's capacity charts for the size, dimensions, and shape of the tank.

(4) Exceptions.

[(A)] UST systems are not required to be equipped with the spill and overfill prevention equipment prescribed in this subsection if one or more of the following conditions are applicable to such system:

(A) [(i)] the transfers of regulated substances into the UST system do not exceed 25 gallons per occurrence;

(B) [(ii)] the UST system is equipped with alternative equipment which has been reviewed and determined by the agency to prevent spills and overfills of regulated substances in a manner that is no less protective of human health and the environment than the equipment prescribed in this subsection, pursuant to procedures for variances found in §334.43 of this title (relating to Variances and Alternative Procedures); or

(C) [(iii)] the installation of the spill and overfill prevention equipment prescribed in this subchapter has been reviewed and determined by the agency to be impracticable due to the type, design, or use of the UST system, pursuant to procedures for variances found in §334.43 of this title.

[(B)] For existing UST systems which are properly equipped on or before December 22, 1994, with both a tight-fill fitting as prescribed in paragraph (2)(A) of this subsection, and an automatic overfill shut-off device as prescribed in

paragraph (2)(C)(i) of this subsection, the implementation date for the installation of spill containment equipment, as prescribed in paragraph (2)(B) of this subsection, shall be deferred until December 22, 1998.]

(c) Spill and overfill control records.

(1) Owners and operators shall maintain the spill and overfill control records required in this subsection in accordance with the requirements in §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) Owners and operators shall maintain records adequate to demonstrate compliance with the spill and overfill prevention and control requirements in this section, and in accordance with the following minimum requirements.

(A) All appropriate installation records related to the installation of any spill and overfill prevention equipment, as listed in §334.46(i) of this title (relating to Installation Standards for New Underground Storage Tank Systems), shall be maintained for as long as the spill and overfill prevention equipment is used.

(B) Records of any servicing, calibration, maintenance, inspection, monitoring, testing, and repair of any spill and overfill prevention equipment shall be maintained for at least five years after such work is completed.

(3) If an owner or operator claims an exemption from the spill and overfill equipment requirements under the provisions of subsection (b)(4) [(b)(4)(A)] of this section (i.e., transfers of 25 gallons or less), such owner or operator shall maintain appropriate transfer or inventory records for at least five years to document the basis for such exemption.

#### **§334.52. Underground Storage Tank System Repairs and Relining.**

(a) General requirements.

(1) Owners and operators shall ensure that any repair or relining of an underground storage tank (UST) system will prevent releases due to structural failure or corrosion for the remaining operational life of the system.

(2) Owners and operators shall ensure that any repair or relining is conducted by qualified personnel possessing the appropriate skills, experience, competence, and, if applicable, any required license or certification to complete the work in accordance with the provisions of this subsection.

(3) Any repairs or relining shall be properly conducted in accordance with a standard or code of practice developed by a nationally recognized association or independent testing laboratory, such as: [.]

(A) National Fire Protection Association (NFPA) Standard 30, "Flammable and Combustible Liquids Code;"

(B) American Petroleum Institute (API) Recommended Practice RP 2200, "Repairing Hazardous Liquid Pipelines;"

(C) API Recommended Practice RP 1631, "Interior Lining and Periodic Inspection of Underground Storage Tanks;"

(D) NFPA 326, "Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair;"

(E) National Leak Prevention Association Standard 631, Chapter A, "Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks;"



(F) Steel Tank Institute Recommended Practice R972,

"Recommended Practice for the Addition of Supplemental Anodes to sti-P<sub>3</sub> Tanks;"

(G) NACE International Standard Practice SP 0285, "Corrosion

Control of Underground Storage Tank Systems by Cathodic Protection;" or

(H) Fiberglass Tank and Pipe Institute Recommended Practice T-95-

02, "Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks."

(4) After completion of any repairs or relining of a [an] UST system, the owner or operator shall obtain detailed written records of the repairs or relining from the person who performed the work.

(5) The requirements of this section shall not be applicable to routine and minor maintenance activities related to the tank and piping systems, such as tightening loose fittings and joints, adjusting and calibrating equipment, and conducting routine inspections and tests. Tank and piping systems may be placed back into operation immediately after the satisfactory completion of such minor maintenance activities.

(6) If any release of regulated substances is discovered or suspected during the UST system repair or relining activity, the owner or operator shall comply with the applicable release reporting, investigation, and corrective action requirements in Subchapter D of this chapter (relating to Release Reporting and Corrective Action).

(7) The performance of any repairs or relining of an existing UST shall not relieve the owner or operator from timely compliance with the technical standards for such tanks, as required in §334.47 of this title (relating to Technical Standards for Existing Underground Storage Tank [UST] Systems).

(b) Tank repairs and relining.

(1) The provisions of this subsection shall be applicable to the in-place repairs or relining of existing tanks. Tanks that are removed from the ground prior to repair or relining shall be considered used tanks and shall be brought into compliance with all provisions of §334.53 of this title (relating to Reuse of Used Tanks) prior to being placed back in operation.

(2) A previously used tank may be repaired or relined and placed back in operation, provided that the repair or relining is conducted in accordance with the provisions of this subsection and in a manner that will prevent releases of regulated

substances due to structural failure or corrosion for the remaining operational life of the tank.

(3) Repairs or relining of fiberglass-reinforced plastic tanks shall be made only by either:

(A) an authorized representative of the tank manufacturer; or

(B) any other person possessing the requisite experience and qualifications to perform the repairs, provided that such repairs shall be performed in accordance with a standard or code of practice developed by a nationally recognized association or independent testing laboratory.

(4) Additional requirements for relining.

(A) Interior lining material(s) used in the repair or reconditioning of a UST shall be compatible with the stored regulated substance, and shall be applied to a minimum thickness of 100 mils.

(B) The entire lining process, including the tank preparation, lining application, inspection, and testing shall be in accordance with a standard or code of

practice developed by a nationally recognized association or independent testing laboratory, such as:[.]

(i) API Recommended Practice 1631, "Interior Lining and Periodic Inspection of Underground Storage Tanks;"

(ii) National Leak Prevention Association Standard 631, Chapter B "Future Internal Inspection Requirements for Lined Tanks;" or

(iii) Ken Wilcox Associates Recommended Practice, "Recommended Practice for Inspecting Buried Lined Steel Tanks Using a Video Camera."

(5) Prior to placing the tank back into operation, any repaired or relined tank shall be either:

(A) tested by means of a tank tightness test meeting the requirements in §334.50(d)(1)(A) of this title (relating to Release Detection);

(B) internally inspected and assessed in accordance with the requirements in §334.47(b)(1)(A)(iv) of this title; or

(C) tested or assessed by any other method that has been reviewed and determined by the agency to be no less protective of human health and safety and the environment than the standards described in subparagraphs (A) and (B) of this paragraph, in accordance with the procedures in §334.43 of this title (relating to Variances and Alternative Procedures).

(6) Not later than December 22, 1998, the entire UST system shall be equipped with a cathodic protection system. Such system shall be designed by a qualified corrosion specialist and shall be operated and maintained in accordance with the applicable cathodic protection requirements of §334.49(c) of this title (relating to Corrosion Protection).

(c) Piping repairs and maintenance.

(1) When a release of a regulated substance has occurred as a result of holes, damage, or corrosion in the piping, valves, or fittings, the repair of the affected piping, valves, or fittings shall not be allowed. Any damaged, corroded, or defective piping sections, valves, or fittings shall be replaced with materials or components meeting the applicable requirements for new piping systems in §334.45(c) of this title (relating to Technical Standards for New Underground Storage Tank Systems).

(2) The installation or reinstallation of previously used piping, valves, or fittings in any UST system is specifically prohibited, regardless of the source or previous use of such previously used components.

(3) Prior to placing the piping system back into operation, any repaired piping system shall be tested by means of a piping tightness test meeting the requirements of §334.50(b)(2)(A)(ii)(I) of this title.

(4) If a repaired metal piping system has not already been equipped with an acceptable cathodic protection system, then the following minimum requirements shall be met prior to placing the piping system back in operation.

(A) The repaired piping sections and fittings shall be thoroughly coated with a suitable dielectric coating and shall be electrically isolated from the remaining piping system by dielectric fittings.

(B) The repaired piping sections and fittings shall be retrofitted with a field-installed cathodic protection system. Such cathodic protection system shall be designed by a qualified corrosion specialist and shall be operated and maintained in accordance with the applicable cathodic protection requirements in §334.49(c) of this title. The remaining portion of the piping system shall be brought into compliance with

the minimum upgrading requirements for existing UST systems in accordance with the procedures and schedules in §334.47 of this title.

(d) Other tank system repairs and ancillary equipment repairs.

(1) Repairs to secondary containment areas of tanks and piping used for interstitial monitoring and to containment sumps used for interstitial monitoring of piping must have the secondary containment tested for tightness according to the manufacturer's instructions, a code of practice developed by a nationally recognized association, or independent testing laboratory within 30 days following the date of completion of the repair. All other repairs to tanks and piping must be tightness tested in accordance with §334.50(b)(2)(A)(ii)(I) and (d)(1)(A) of this title within 30 days following the date of completion of the repair.

(2) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested or inspected, as appropriate, in accordance with §334.48(g) of this title (relating to General Operating and Management Requirements) to ensure it is operating properly.

(e) [(d)] Records for repairs and relining.

(1) Owners and operators shall maintain the repair and relining records required in this subsection in accordance with the requirements in §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) Owners and operators shall maintain records adequate to demonstrate compliance with the applicable repairs and relining requirements in this section, and in accordance with the following minimum requirements.

(A) General information related to the repairs or relining shall be maintained for the remaining operational life of the UST system, including:

(i) date and description of the repairs or relining;

(ii) names, addresses, and telephone numbers of the persons who conducted the repairs or relining; and

(iii) copies of all related construction notification, registration, and certification documents filed with the agency.

(B) Results of all inspections, tests, and maintenance activities required in this section shall be maintained for at least five years.



(C) Materials specifications, warranty information, recommended test procedures, and inspection and maintenance schedules applicable to the relining of any tank shall be maintained for the remaining operational life of the UST system.

**§334.54. Temporary Removal from Service.**

(a) Applicability. An underground storage tank (UST) system shall be considered to be temporarily out of service, regardless of whether or not regulated substances remain in the UST system, when the following conditions apply.

(1) The normal operation and use of the UST system is deliberately, but temporarily, discontinued for any reason.

(2) The infrequent use of the UST system cannot be adequately justified as part of its purpose.

(3) The operation, maintenance, and/or release detection procedures are determined to be inadequate or otherwise inconsistent with the monitoring procedures normally associated with in-service systems of similar type and purpose.

(b) All UST systems. Regardless of whether or not regulated substances remain in the UST system, the owner or operator shall assure that the UST system is

maintained in compliance with the following requirements for the balance of time that the UST system remains temporarily out of service.

(1) All vent lines shall be kept open and functioning.

(2) All other piping, pumps, manways, tank access points (e.g., fill risers, automatic tank gauging risers, Stage I vapor recovery risers) and ancillary equipment shall be capped, plugged, locked, and/or otherwise secured to prevent access, tampering, or vandalism by unauthorized persons.

(3) Testing and inspections. Spill and overflow operation and maintenance testing and walkthrough inspections (as listed in §334.48(g) and (h) of this title (relating to General Operating and Management Requirements)) are not required on temporarily out of service UST systems.

(c) Protected and monitored systems. Any UST system may remain out of service indefinitely so long as the following requirements are met during the period that the UST system remains temporarily out of service.

(1) The UST system shall be adequately protected from corrosion in accordance with the applicable requirements of §334.49 of this title (relating to Corrosion Protection).

(2) Unless the UST system has been emptied of all regulated substances (as described under subsection (d) of this section) at the time it is temporarily removed from service, the UST system shall be monitored for releases in accordance with the applicable requirements of §334.50 of this title (relating to Release Detection).

(3) Returning UST system to service.

(A) When a protected and empty UST system that has been temporarily out of service for longer than six months is placed back into service, the owner or operator shall ensure the integrity of the system by the performance of tank tightness and piping tightness tests that meet the requirements of §334.50(d)(1)(A) of this title, and as applicable, §334.50(b)(2)(A)(ii)(I)[,] or (B)(i)(I)[,] of this title, prior to bringing the system back into operation;

(B) When either a protected and monitored or a protected and empty UST system is placed back into service, the owner or operator shall also ensure that the UST system either is in compliance or is brought into compliance with all applicable release detection, and spill and overfill prevention requirements of §334.50 of this title and §334.51 of this title (relating to Spill and Overfill Prevention and Control); and

(C) Before any UST system is returned to service under this subsection, the owner or operator must first submit a construction notification form as specified in §334.6(b) of this title (relating to Construction Notification for Underground Storage Tanks (USTs) and UST Systems).

(d) Empty system.

(1) For the purposes of this section only, and specifically for the purpose of exempting certain UST systems (when temporarily out of service) the following requirements shall not apply as long as a UST system is empty: [from the release detection requirements of this chapter,]

(A) release detection (as listed in §334.50 of this title); and

(B) release detection operation and maintenance testing and inspections (as listed in §334.48(e)(1) of this title).

(2) A [an] UST system shall be considered empty when all of the following provisions have been met:

(A) [(1)] all [All] regulated substances have been removed as completely as possible by the use of commonly-employed and accepted industry procedures; [.]

(B) [(2)] any [Any] residue from stored regulated substances which remains in the system (after the completion of the substance removal procedures under subparagraph (A) of this paragraph [paragraph (1) of this subsection]) shall not exceed a depth of 2.5 centimeters at the deepest point and shall not exceed 0.3% by weight of the system at full capacity; and [.]

(C) [(3)] the [The] volume or concentration of regulated substances remaining in the system would not pose an unreasonable risk to human health and safety or to the environment if a release occurs during the period when the system is temporarily out of service.

(e) Other requirements.

(1) Releases. If a release of a regulated substance is suspected or confirmed, the owner or operator of a [an] UST system which is temporarily out of service shall comply with all release reporting, investigation, and corrective action requirements in Subchapter D of this chapter (relating to Release Reporting and Corrective Action).

(2) Registration. At the time a [an] UST system is temporarily taken out of service and at the time a [an] UST system is brought back into service, the owner shall comply with the applicable tank registration requirements in §334.7 of this title (relating [related] to Registration for Underground Storage Tanks (USTs) and UST Systems).

(3) Fees. A [An] UST which is temporarily out of service in accordance with this section shall remain subject to the agency's UST fees in Subchapter B of this chapter (relating to Underground Storage Tank Fees).

(4) Recordkeeping for temporary removal from service.

(A) Owners and operators shall maintain records adequate to demonstrate compliance with the requirements in this section, in accordance with §334.10(b) of this title (relating to Reporting and Recordkeeping).

(B) At a minimum, the following records shall be maintained for at least five years after the UST system is temporarily removed from service:

(i) date that the UST system was temporarily removed from service;

(ii) name, address, and telephone number of the person who prepared the UST system for the period of non-use;

(iii) documentation of the procedures used to prepare and empty the UST system;

(iv) copies of all documentation relative to any requests and approvals of extensions of time;

(v) name, address, and telephone number of the person who conducted the tank and piping tightness tests, prior to returning the UST system to service;

(vi) results of any tank and piping tightness tests; and

(vii) date that the UST system was returned to service.

(5) Financial assurance requirements for tanks temporarily removed from service. Note that §37.885 of this title (relating to Release from the Requirements) addresses release from financial assurance requirements, and that Texas Water Code, §26.352(e-2) and §37.867 of this title (relating to Duty to Empty Tanks After

Termination of Financial Assurance) address the duty to empty tanks after termination of financial assurance.

**§334.55. Permanent Removal from Service.**

(a) General provisions.

(1) Any owner or operator who intends to permanently remove an underground storage tank (UST) from service (by either removing the tank from the ground, abandoning the tank in-place, or conducting a permanent change-in-service) shall provide prior notice of this activity to the agency in accordance with §334.6 of this title (relating to Construction Notification for Underground Storage Tanks (USTs) and UST Systems).

(2) The procedures used in permanently removing the UST from service shall conform with accepted industry practices, and shall be in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory.

(3) The permanent removal from service shall be conducted by qualified personnel possessing the appropriate skills, experience, competence, and, if applicable, any required license or certification to complete the activity in accordance with the



provisions of this section and in a manner designed to minimize the possibility of any threats to human health and safety or the environment.

(4) All USTs that are intended for permanent removal from service shall be emptied of all regulated substances and accumulated sludges or residues, and shall be purged of all residual vapors in accordance with accepted industry procedures commonly employed for the stored regulated substance.

(5) The handling, transportation, and disposal of any regulated substances removed from a UST system, and any contaminated soils, backfill material, groundwater, wash water, or other similar materials removed from the system or facility, shall be conducted in a safe and environmentally sound manner, and shall be in accordance with all applicable federal, state, and local regulations in effect for the type, volume, contaminant concentration, and classification of the removed material.

(6) As part of the required procedure for the permanent removal of any UST system from service, the owner or operator shall determine whether or not any prior release of a stored regulated substance has occurred from the system.

(A) This determination shall be performed subsequent to the submittal of notification to the agency as prescribed in §334.6 of this title, but prior to completion of the permanent removal from service.

(B) This determination shall be made by visual inspection of the area in and immediately surrounding the excavation zone for any above-ground releases and for any exposed below-ground releases, and by using one or both of the following methods or procedures:

(i) the continual operation (through the time that the stored regulated substances are removed from the UST system) of one or more of the external release monitoring and detection methods operating in accordance with §334.50(d)(5) - (8) of this title (relating to Release Detection); or

(ii) the performance of a comprehensive site assessment in accordance with the requirements of subsection (e) of this section.

(C) Any methods or procedures used to make this determination shall be capable of detecting any prior release of stored regulated substances from any portion of the UST system.

(D) Upon completion of this determination, the owner or operator shall:

(i) report any confirmed or suspected releases to the agency and comply with all applicable release investigation and corrective action

requirements, as prescribed in Subchapter D of this chapter (relating to Release Reporting and Corrective Action);

(ii) prepare or assemble the detailed written records of this determination, which shall include the methods, procedures, results, and names, addresses, and telephone numbers of the persons involved in conducting such determination. Such records shall be maintained in accordance with the applicable provisions in subsection (f) of this section, and a copy of such records shall be filed with the agency in conjunction with the applicable tank registration requirements of §334.7 of this title (relating to Registration for Underground Storage Tanks (USTs) and UST Systems).

(7) For a UST to be considered permanently out-of-service, the owner or operator shall either remove the tank from the ground in accordance with subsection (b) of this section, abandon in-place and fill the tank with an acceptable solid inert material in accordance with subsection (c) of this section, or conduct a permanent change-in-service in accordance with subsection (d) of this section. Unused tanks (i.e., tanks at facilities which are closed or out-of-business) shall be considered temporarily out-of-service, and shall be subject to the provisions of §334.54 of this title (relating to Temporary Removal from Service), unless they have been permanently removed from service in accordance with this section.

(8) The requirements in this section are applicable to all USTs which are permanently removed from service on or after September 29, 1989 [the effective date of this subchapter].

(9) For a UST permanently removed from service prior to September 29, 1989 [the effective date of this subchapter], where the methods previously used for the release determination or the removal from service are unknown or are determined to have been inadequate, the agency may require the owner or operator to conduct any or all of the following additional activities as appropriate:

(A) proper removal of the UST system from service, in accordance with the applicable provisions of this section;

(B) completion of a comprehensive site assessment, in accordance with the requirements of subsection (e) of this section;

(C) release reporting, investigation, and corrective action if a release of a regulated substance has occurred, in accordance with Subchapter D of this chapter; and/or

(D) any other activities necessary to prevent any adverse impacts on human health and safety and the environment.

(b) Removal from the ground. In addition to the requirements of subsection (a) of this section, the following requirements shall be applicable for the removal of USTs from the ground.

(1) Except as provided under paragraph (2) of this subsection, tanks shall be properly emptied, cleaned, and purged of vapors prior to removal from the ground, in accordance with accepted industry procedures commonly employed for the stored regulated substance.

(2) When an owner or operator can demonstrate good cause for removal of a tank from the ground prior to emptying, cleaning, or purging the vapors, the owner or operator shall obtain approval from the manager of the appropriate regional [district] office (or the manager's designated representative) prior to proceeding with the removal. In this situation, the tank removal shall be accomplished only under the direct supervision of agency personnel and/or local fire officials, and all conditions and requirements imposed by such supervisory officials shall be strictly followed.

(3) Prior to removing the tank from the ground, all connected piping and other ancillary equipment shall be emptied, disconnected, and properly plugged, capped, or removed.

(4) Storage of removed tanks.

(A) After removal, a tank shall be transported from the site within 24 hours of removal, unless prior approval of a longer on-site storage period is obtained from the manager of the appropriate regional [district] office (or the manager's designated representative).

(B) The on-site storage of tanks for a period of 24 hours or less shall be in a designated temporary storage area which shall be an adequate distance from known ignition sources and which shall be clearly identified with appropriate barriers and warning signs to restrict access by unauthorized persons.

(C) On-site storage of removed tanks for more than 24 hours (when approved by the regional [district] manager), and off-site storage for any period, shall only be allowed in locked, securely fenced, or similarly restricted areas where unauthorized persons will not have access.

(D) No later than 24 hours after removal, all removed tanks (regardless of condition) shall be legibly and permanently labeled (in letters at least two inches high) with the name of the former contents, a flammability warning (if applicable), and a warning that the tank is unsuitable for the storage of drinking water or the storage of human or animal food products.

(E) The residual vapor levels in any removed tank which is stored at the UST facility shall be maintained at nonexplosive and nonignitable levels for the entire time that the tank remains at the facility.

(F) Regardless of where the tank is stored, not later than ten days after the tank has been removed from the ground, any residual liquids or vapors shall be permanently removed to render the tank nonignitable and nonexplosive.

(5) Transportation and disposal of removed tanks.

(A) The methods and procedures used for the handling, transporting, and disposing of any removed USTs (and parts of such tanks) shall be protective of human health and safety and the environment, and shall be in accordance with all applicable federal, state, and local regulations.

(B) Removed tanks (and any parts of such tanks) which have been emptied, thoroughly cleaned of all remaining substances and any remaining residues, and permanently purged of vapors may be appropriately disposed by scrapping, junking, or reusing for purposes unrelated to the underground storage of regulated substances.

(C) Prior to transporting any removed tank from the UST facility, the following minimum preparation procedures shall be followed.

(i) The remaining regulated substances shall be removed, and visible residues or sediments shall be cleaned from the tank as completely as possible, in accordance with commonly used and accepted industry practices.

(ii) Residual vapor levels in the tank shall be reduced to nonexplosive and nonignitable levels, and shall be maintained at such levels during the entire period of transportation.

(iii) All holes and openings shall be properly plugged or capped, except for one 1/8-inch diameter vent hole positioned at the top of the tank during transportation.

(D) The subsequent reuse of any removed tanks for the underground storage of regulated substances (whether on-site or off-site) shall only be allowed under the provisions of §334.53 of this title (relating to Reuse of Used Tanks).

(6) The tank owner shall develop and maintain a permanent record of the prior location of the removed tank; the date of removal; the substance previously stored; the method of conditioning the tank for removal; the methods of handling,



transportation, storing, and disposing of the tank; the names, addresses, and telephone numbers of the person conducting the activities; and any information regarding any known releases from such tank. If the facility owner is not the same person as the tank owner, the tank owner shall provide a copy of such information to the site or facility owner within 30 days after the date of removal.

(c) Abandonment in-place. A UST may be permanently removed from service by abandonment in-place in lieu of actual removal from the ground. In addition to the requirements of subsection (a) of this section, the following requirements shall be applicable to the abandonment in-place of USTs.

(1) When the UST owner is not the owner of the site or facility where such tank is located, the tank owner is prohibited from abandoning such tank in-place unless the following conditions are met.

(A) The tank owner shall provide written notice to the owner of the site or facility for the abandonment in-place prior to initiating the activity.

(B) After completion of the abandonment in-place, the tank owner shall provide to the site or facility owner a legible copy of the permanent record of the abandonment, as described in paragraph (3) of this subsection.

(2) Any tank that is abandoned in-place shall be filled with a solid inert material as prescribed in this paragraph.

(A) Only solid inert materials which are free of any harmful contaminants or pollutants shall be used to fill the tank. Acceptable materials include sand, fine gravel, sand and gravel mixtures, and cement/concrete-based slurries. Other materials such as native soils, drilling muds, and commercially marketed fill materials shall not be used for filling the tank unless the material and filling procedures have been reviewed and approved by the agency in accordance with §334.43 of this title (relating to Variances and Alternative Procedures).

(B) Adequate access openings shall be made in the top of the tank, and the tank shall be filled as completely as possible. Voids and air pockets shall be eliminated.

(C) The fill material and filling procedures shall be adequate to assure that:

(i) the filled tank will not surface after completion of the filling operation;

(ii) any settling or instability of the ground surface subsequent to the abandonment in-place is minimized or eliminated;

(iii) the fill materials will form a permanent solid inert filler that can be expected to remain structurally stable in the ground to prevent cave-ins, even after the subsequent deterioration of the tank walls; and

(iv) the filled tank and associated piping are disconnected and capped or sealed so as to preclude their future use for any storage or disposal purposes.

(3) The tank owner shall develop and maintain a permanent record of the name and address of the tank owner (and site or facility owner, if different); the abandoned tank location; the date of abandonment; the substance previously stored; the method of conditioning the tank for abandonment; release assessment results; the names, addresses, and telephone numbers of the persons conducting the activities; and information regarding the extent of any confirmed releases and any resulting remediation activities.

(A) When the tank owner is not the owner of the facility where the tank is located, the tank owner shall provide to the current facility owner a legible copy

of the permanent record of the abandonment in-place. Such information shall be provided no later than 30 days after completion of the abandonment in-place.

(B) The facility owner shall maintain a permanent record of the tank abandonment in-place in accordance with subsection (f) of this section.

(C) Prior to the sale or conveyance of the facility where an abandoned UST is located, the facility owner shall provide written documentation of the tank abandonment information to the succeeding property owner.

(d) Change-in-service. In addition to the requirements of subsection (a) of this section, the following requirements shall be applicable for any change-in-service where a UST system storing regulated substances is converted to a system storing materials other than regulated substances.

(1) Prior to refilling with materials other than regulated substances, the UST shall be properly emptied, cleaned, and purged of vapors in accordance with a code or standard of practice developed by a nationally recognized association or independent testing laboratory for the stored regulated substance. The procedures for emptying, cleaning, and purging the UST shall be designed to remove as much as possible of the previously stored regulated substances, including all liquids, vapors,

sludges, and residues, in a manner that is protective of human health and safety or the environment.

(2) A change-in-service where a UST storing regulated substances is to be converted for the storage of either drinking water or food products intended for human consumption is specifically prohibited.

(3) Any change-in-service shall be in accordance with all applicable federal, state, and local regulations.

(4) The owner shall develop and maintain a permanent record of the location of the UST; the date of the change-in-service; the regulated substance previously stored; the method of conditioning the tank for the change-in-service; the names, addresses, and telephone numbers of the persons conducting the activities; and any information regarding any known releases of regulated substances from such tank. If the facility owner is not the same person as the UST owner, the UST owner shall provide a copy of such information to the facility owner within 30 days after the date of the change-in-service.

(5) For the purposes of this section, a UST which has been converted to the storage of materials other than regulated substances (i.e., water) shall be subject to

the procedures for temporary removal from service in §334.54 of this title, except when the stored materials are utilized on a regular basis for beneficial purposes.

(e) Site assessment.

(1) A site assessment meeting the requirements of this subsection shall be performed by the owner or operator of a UST system in the following situations to determine whether or not a release has occurred:

(A) when the site assessment is selected as the method to achieve compliance with the release determination requirements of subsection (a)(6) of this section for a UST which is permanently removed from service on or after September 29, 1989 [the effective date of this subchapter];

(B) when the agency determines that a site assessment is necessary at any site or facility where a UST was permanently removed from service prior to September 29, 1989 [the effective date of this subchapter], and where the site assessment or release determination at the time of removal from service was determined to be either nonexistent or inadequate; or

(C) when the agency determines that a site assessment is necessary at any site or facility where a release or suspected release may pose a current or potential threat to human health or safety or the environment.

(2) The site assessment shall be conducted by qualified personnel possessing the appropriate skills, experience, and competence to perform the assessment in accordance with recognized industry practices and the provisions of this section and shall be supervised by a person who is currently licensed by the Texas Commission on Environmental Quality (TCEQ) as a UST installer or on-site supervisor or currently registered with the TCEQ as a corrective action project manager.

(3) Any procedures used for the site assessment must be capable of measuring for the presence of a release from any part of the UST system and, at a minimum, must include measurements for releases at locations where contamination is most likely to be present at the site.

(4) The owner or operator shall assure that in selecting the sampling or measurement methods, the sample types, and the sampling or measurement locations, the persons conducting the assessment shall take into consideration the following factors to ensure that the presence of any released regulated substances is detected and quantified:

(A) the specific method of removing the UST system from service;

(B) the nature and composition of the stored regulated substance;

(C) the type and characteristics of the backfill material and surrounding soils;

(D) the presence of groundwater, and its depth with relation to the UST system and the surface of the ground; and

(E) any other factors that may affect the reliability or effectiveness of the site assessment procedures or techniques.

(5) One or more of the following methods may be used for conducting the site assessment and release determination required under this section, provided that such methods are in compliance with the performance standards in paragraphs (2) - (4) of this subsection:

(A) collection and analysis of soil samples secured from unsaturated sections of the UST system excavation zone and surrounding soils, where such samples shall be analyzed for major constituents and/or indicator parameters of the stored regulated substance(s);



(B) collection and analysis of groundwater samples secured from the UST system excavation zone and surrounding area, where such samples shall be analyzed for all major constituents or indicator parameters of the stored regulated substance(s); and/or

(C) any other site assessment or release determination method or procedure which has been reviewed and determined by the agency to detect prior releases of the stored regulated substance(s) in a manner that is no less protective of human health and the environment than the methods described in subparagraphs (A) and (B) of this paragraph, as provided under §334.43 of this title.

(D) The owner or operator must report any suspected or confirmed releases indicated by the site assessment to the agency and comply with all applicable release investigation and corrective action requirements, as prescribed in Subchapter D of this chapter.

(f) Records for permanent removal from service.

(1) Owners and operators shall maintain records adequate to demonstrate compliance with the requirements of this section, in accordance with §334.10(b) of this title (relating to Reporting and Recordkeeping).

(2) At a minimum, the following records shall be maintained [for as long as any UST remains in service at the facility, or] for five years after the UST system is permanently removed from service[, whichever is longer]:

(A) records of the release determination or site assessment, in accordance with the requirements in subsection (a)(6)(D)(ii) of this section;

(B) records related to the tank removal procedures (as applicable), in accordance with the requirements in subsection (b)(6) of this section;

(C) records related to the abandonment in-place of a UST system (as applicable), in accordance with the requirements in subsection (c)(3) [(c)(4)] of this section; and

(D) records related to the change-in-service of a UST system (as applicable), in accordance with the requirement in subsection (d)(4) of this section.

(g) Codes of practice. The following cleaning and closure procedures may be used to comply with this section:

(1) American Petroleum Institute (API) Recommended Practice 1604, "Closure of Underground Petroleum Storage Tanks;"

(2) API Standard 2015, "Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks;"

(3) API Recommended Practice 2016, "Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks;"

(4) API Recommended Practice 1631, "Interior Lining and Periodic Inspection of Underground Storage Tanks;" and

(5) National Fire Protection Association Standard 326, "Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair."

**SUBCHAPTER D: RELEASE REPORTING AND CORRECTIVE ACTION**

**§334.72, §334.74**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under this code and other laws of this state; TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule; TWC, §26.011, which requires the commission to control the quality of water by rule; TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding underground storage tanks (USTs) and aboveground storage tanks (ASTs); and TWC, §26.351, which directs the commission to adopt rules establishing the requirements for taking corrective action in response to a release from a UST or an AST.

The United States Environmental Protection Agency has amended the rules pertaining to underground storage tank requirements and standards (40 Code of Federal Regulations (CFR) Part 280) and state program approval (40 CFR Part 281), effective October 13, 2015. TWC, §26.3441 and §26.357, require standards and rules concerning USTs and ASTs adopted by the commission to be as stringent as federal requirements. The rules implement or track as closely as possible the amended federal rules.

**§334.72. Reporting of Suspected Releases.**

Owners and operators of aboveground storage tank (AST) and underground storage tank (UST) systems must report to the agency within 24 hours (see §334.50(d)(9)(A)(v) of this title (relating to Release Detection) for reporting requirements associated with statistical inventory reconciliation inconclusive results), and follow the procedures in §334.74 of this title (relating to Release Investigation and Confirmation Steps) for any of the following conditions:

(1) The discovery by owners and operators, or written notification by others to the owner or operator, of released regulated substances at the AST or UST site or in the surrounding area (such as the presence of non-aqueous phase liquids [(NAPL)] or vapors in soils, basements, sewer and utility lines, and nearby surface water);

(2) Unusual operating conditions observed by owners or operators (such as the erratic behavior of product dispensing equipment that is consistent with or indicates a release, the sudden loss of product from the AST or UST system, [or] an unexplained presence of water in the tank, or liquid in the interstitial space of secondarily contained systems), unless: [the system equipment is found to be defective but not leaking;]

(A) the system equipment or component is found not to be releasing regulated substances to the environment;

(B) any defective system equipment or component is immediately repaired or replaced; and

(C) for secondarily contained systems, except as provided for in §334.50(d)(8)(C) of this title, any liquid in the interstitial space not used as part of the interstitial monitoring method (for example, brine filled) is immediately removed.

(3) Monitoring results, including investigation of an alarm, from a release detection method required under §334.50 of this title [(relating to Release Detection)] or other method that indicates a release may have occurred unless:

(A) the monitoring device is found to be defective and is immediately repaired, recalibrated, or replaced, or the monitoring procedure is found to be ineffective, and is modified, and additional monitoring does not confirm the initial result; [or]

(B) in the case of inventory control, described in §334.50(d)(1)(B) of this title, a second 30-day period [month] of data does not confirm the initial result or the alarm investigation determines no release has occurred; [or]

(C) the leak is contained in the secondary containment:

(i) except as provided for in §334.50(d)(8)(C) of this title, any liquid in the interstitial space not used as part of the interstitial monitoring method (for example, brine filled) is immediately removed; and

(ii) any defective system equipment or component is immediately repaired or replaced; or

(D) the alarm was investigated and determined to be a non-release event (for example, from a power surge or caused by filling the tank during release detection testing).

[(4) For UST systems which are required to be of double-wall construction or secondarily contained and for UST systems in which interstitial monitoring is being employed for compliance with the requirements of §334.50 of this title, whenever monitoring or observation indicates a breach in either the primary wall or secondary barrier (whether or not a release of regulated substance into the environment has occurred), unless the primary or secondary barrier is determined to be intact, and the monitoring equipment is found to be defective, and is immediately repaired, recalibrated, or replaced, and additional monitoring does not confirm the initial result.]

**§334.74. Release Investigation and Confirmation Steps.**

Unless corrective action is initiated in accordance with §§334.76 - 334.81 of this title (relating to Initial Response to Releases; Initial Abatement Measures and Site Check; Site Assessment; Removal of Non-Aqueous Phase Liquids (NAPLs); Investigation for Soil and Groundwater Cleanup; and Corrective Action Plan), owners or operators must immediately investigate and confirm all suspected releases of regulated substances requiring reporting under §334.72 of this title (relating to Reporting of Suspected Releases) within 30 days, using either the following steps or another procedure and schedule approved or required by the agency.

(1) System test. Owners or operators must conduct tests [(according to the requirements for tightness testing in §334.50 of this title (relating to Release Detection) and secondary containment testing described in §334.48(e) of this title (relating to General Operating and Management Requirements), as appropriate]that determine whether a leak exists in that portion of the tank that routinely contains product, or the attached delivery piping, or both].

(A) The test must determine whether:



(i) a leak exists in the portion of the tank that routinely contains product or the attached delivery piping; or

(ii) a breach of either wall of the secondary containment has occurred.

(B) [(A)] If the system test confirms a leak into the interstice or a release, owners [Owners] and operators must repair, [or] replace, or close the aboveground storage tank (AST) or underground storage tank (UST) system, and begin corrective action in accordance with §§334.76 - 334.81 of this title if the test results for the system, tank, or delivery piping indicate that a leak exists.

(C) [(B)] Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a leak exists and if environmental contamination is not the basis for suspecting a release.

(D) [(C)] Owners and operators must conduct a site check as described in paragraph (2) of this section if the test results for the system, tank, and delivery piping do not indicate that a leak exists but environmental contamination is the basis for suspecting a release.

(2) Site check. Owners and operators must measure for the presence of a release where contamination is most likely to be present at the AST or UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the nature of the stored substance, the type of initial alarm or cause for suspicion, the type of backfill, the depth to groundwater, and other factors appropriate for identifying the presence and source of the release.

(A) If the test results from an excavated area, or other area(s) of the AST or the UST site indicate that a release has occurred, owners and operators must begin corrective action in accordance with §§334.76 - 334.81 of this title.;

(B) If the test results from an excavated area, or other area(s) of the AST or UST site do not indicate that a release has occurred, further investigation is not required.

(3) In the event there is no evidence of a release after performing the tests required in paragraphs (1) and (2) of this section, the owner or operator must file a report which contains a detailed description of the investigative procedures followed in addressing the requirements of this section and which includes the results of all tests or monitoring performed. This report must be filed with the agency not later than 45 days after the first observation of the suspected release or another schedule approved or required by the agency. The owner or operator shall include with this

report a statement which has been signed by the owner or operator certifying that the requirements of this section have been met.

## **SUBCHAPTER F: ABOVEGROUND STORAGE TANKS**

### **§§334.123 - 334.125, 334.127**

#### **Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule; TWC, §26.011, which requires the commission to control the quality of water by rule; and TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding underground storage tanks and aboveground storage tanks.

The proposed amendments are administrative in nature and include updates to references to the commission, from the Texas Natural Resource Conservation Commission (TNRCC) to Texas Commission on Environmental Quality (TCEQ), which changed in House Bill 2912, 77th Texas Legislature, 2001, and Senate Bill 318, 77th Texas Legislature, 2001.

#### **§334.123. Exemptions for Aboveground Storage Tanks (ASTs).**

(a) The following aboveground storage tanks (ASTs) are exempt from regulation under this subchapter:

(1) a farm or residential tank with a capacity of 1,100 gallons or less used for storing motor fuel for non-commercial [noncommercial] purposes;

(2) a tank used for storing heating oil for consumptive use on the premises where stored;

(3) a septic tank;

(4) a surface impoundment, pit, pond, or lagoon;

(5) a stormwater or wastewater collection system;

(6) a flow-through process tank;

(7) a tank, liquid trap, gathering line, or other facility used in connection with an activity associated with the exploration, development, or production of oil, gas, or geothermal resources, or any other activity regulated by the Railroad Commission of Texas pursuant to the Texas Natural Resources Code, §91.101;

(8) a tank located on or above the surface of the floor of an underground area, such as a basement, cellar, mineworking, drift, shaft, or tunnel, if the sole or principal substance in the tank is a hazardous substance; and

(9) a tank that is located at or is part of a petrochemical plant, a petroleum refinery, an electric generating facility, or a bulk facility.

(b) The following pipeline facilities are exempt from regulation under this subchapter, as provided in Texas Water Code, §26.344:[:]

(1) an interstate pipeline facility, including gathering lines, or [and] any AST connected to such facility, if the pipeline facility is regulated under the Hazardous Liquid Pipeline Safety Act of 1979 (49 United States Code, §60101, et seq and its subsequent amendments or a succeeding law).[:]

[(A) the Natural Gas Pipeline Safety Act of 1968 (49 United States Code §1671, et seq.); or]

[(B) the Hazardous Liquid Pipeline Safety Act of 1979 (49 United States Code §2001, et seq.);]

(2) an intrastate pipeline facility or any AST connected to such a facility, if the pipeline facility is regulated under one of the following state laws:

(A) the Texas Natural Resources Code, Chapter 111;

(B) the Texas Natural Resources Code, Chapter 117; or

(C) Texas Civil Statutes, Article 6053-1 and 6053-2.

(c) Upon request by the agency, the owner and operator of a tank claimed to be exempted under this section must provide appropriate documentation or other information in a timely manner to support that claim.

**§334.124. Exclusions for Aboveground Storage Tanks (ASTs).**

(a) Except as provided in subsection (b) of this section, the following aboveground storage tanks (ASTs) are excluded from regulation under this subchapter:

(1) any tank with a capacity of 1,100 gallons or less;

(2) any emergency spill protection or emergency overflow containment tank, including any sump or secondary containment system, which is used solely for the temporary storage or containment of petroleum products resulting from a leak, spill, overfill, or other unplanned release of petroleum products from any source, and where the petroleum products are routinely removed within 48 hours of the discovery

of the release, provided that this tank must be inspected for a release no less than once every 30 days [month];

(3) any tank that contains petroleum products at such dilute concentrations that:

(A) the mixture is not capable of being used as a fuel for the propulsion of a motor vehicle or aircraft; and

(B) any release would not pose any significant threat to human health and safety or the environment;

(4) a transformer or other electrical equipment that is used in the transmission of electricity.

(b) Notwithstanding the exemptions in subsection (a) of this section, any AST containing petroleum products located at a retail service station is subject to the construction notification requirements of §334.126 of [the] this title (relating to Installation Notification for Aboveground Storage Tanks (ASTs)).



(c) Upon request by the agency, the owner and operator of a tank claimed to be excluded under this section must provide appropriate documentation or other information in a timely manner to support that claim.

**§334.125. General Prohibitions and Requirements for Aboveground Storage Tanks (ASTs).**

(a) Delivery prohibition. Except as provided in paragraph (1) of this subsection, on or after June 25, 1990 [the effective date of this subchapter], no common carrier (as defined in §334.2 of this title (relating to Definitions) shall deposit any petroleum products into an aboveground storage tank (AST) unless he observes that the owner or operator has a valid, current registration certificate, issued by the agency in accordance with §334.127 of this title (relating to Registration for [of] Aboveground Storage Tanks (ASTs)).

(1) For new or replacement AST systems, only during the initial period ending 90 days after that petroleum product is first deposited into such system(s), a common carrier may accept, as adequate to meet this requirement, documentation that the owner or operator has a "temporary delivery authorization" (as defined at §334.127(h) of this title) issued by the agency for the facility at which the new or replacement AST system(s) exists.

(2) A common carrier delivering petroleum product into an AST system may observe a valid, current, original registration certificate (or temporary delivery authorization, if applicable), or a legible copy of the same.

(b) Owner/Operator requirements. The owner and operator of ASTs regulated under this section must make available to a common carrier a valid, current Texas [Natural Resource Conservation] Commission on Environmental Quality (TCEQ) [(TNRCC)] tank registration certificate (or TCEQ [(TNRCC)] temporary delivery authorization, as applicable) before delivery of a petroleum product(s) into the AST(s) can be accepted. The bill of lading for the first delivery of petroleum product into any new or replacement AST system at the facility must be attached to the temporary delivery authorization for that facility.

**§334.127. Registration for Aboveground Storage Tanks (ASTs).**

(a) General provisions.

(1) All aboveground storage tanks (ASTs) in existence on or after September 1, 1989, must be registered with the agency on authorized agency forms in accordance with subsection (e) of this section, except for those tanks which:

(A) are exempt from regulation under §334.123 of this title (relating to Exemptions for Aboveground Storage Tanks (ASTs)); or

(B) are excluded from regulation under §334.124 of this title (relating to Exclusions for Aboveground Storage Tanks (ASTs)).

(2) The owner and operator of an AST are responsible for compliance with the tank registration requirements of this section. An owner or operator may designate an authorized representative to complete and submit the required registration information; however, the owner and operator remain responsible for compliance with the provisions of this section.

(3) All ASTs subject to the registration requirements of this section are also subject to the fee provisions in §334.128 of this title (relating to Annual Facility Fees for Aboveground Storage Tanks (ASTs)), except where specifically exempted from such fee provisions. The failure by a tank owner or operator to properly or timely register any tanks shall not exempt the owner from such fee assessment and payment provisions.

(4) Proper completion of the specified agency tank registration form will result in the agency's issuance of a registration certificate for the tanks at the facility covered by that registration. This certificate is tied to the delivery prohibitions detailed

in §334.125 of this title (relating to General Prohibitions and Requirements for Aboveground Storage Tanks (ASTs)).

(b) Existing tanks. Any person who owns or operates an AST subject to the provisions of this section that was in existence on September 1, 1989, shall register such tank with the agency not later than March 1, 1990, on an authorized agency form.

(c) New or replacement tanks. Any person who owns or operates a new or replacement AST subject to the provisions of this section that is placed into service on or after September 1, 1989, must register the tank with the agency on an authorized agency form [no later than March 1, 1990, or] within 30 days from the date any petroleum product is first placed into the tank[, whichever is later].

(d) Changes or additional information. An owner or operator of an AST subject to the provisions of this section must provide written notice to the agency of any changes or additional information concerning the status of any regulated tanks, including, but not limited to, information regarding the operational status, condition, substance stored, ownership, location of records, and number of tanks. This notice must be submitted on an authorized agency form which has been completed in accordance with subsection (e) of this section. This form must be properly completed and signed, and shall include the Texas [Natural Resource Conservation] Commission on Environmental Quality (TCEO) [(TNRCC)] facility identification number in the

appropriate space on the form. Notice of any change or additional information must be filed with the agency within 30 days of the occurrence of the change or addition, or within 30 days from the date on which the owner or operator first became aware of the change or addition, as applicable.

(e) Required form for providing AST registration information.

(1) Any AST owner or operator required to submit tank registration information under subsections (a) - (d) of this section must provide all the information indicated on the agency's authorized form for each regulated AST owned.

(2) The tank registration form must be filled out completely and accurately. Upon completion, the form must be dated and signed by the owner, operator, or an authorized representative of the owner or operator, and must be filed with the agency within the time frames specified in this section.

(3) All AST owners or operators required to submit AST registration information under subsections (a) - (d) of this section must provide the registration information for all ASTs located at a particular facility on the same registration form.

(4) All AST owners or operators who own or operate ASTs located at more than one facility must complete and file a separate registration form for each facility

where regulated ASTs are located, unless otherwise allowed under subsection (f) of this section.

(5) If additional documents are submitted with new or revised registration data, the specific facility identification information (including the facility identification number, if known) must be conspicuously indicated on each document, and all such documents must be securely attached to and filed with the registration form.

(f) Registration requirements for movable ASTs. Movable or mobile ASTs which are regularly used to store petroleum products (e.g., skid tanks) must also be registered by the owner or operator in accordance with the provisions of this section. When such tanks are intended to be moved from one location to another on a regular basis and are not permanently part of any particular facility, then an owner or operator may register the tanks in accordance with the following procedures:

(1) for [For] the purposes of completing the tank registration form, the owner or operator must identify the facility location for such movable tanks as the owner's or operator's principal business address or location;

(2) the [The] owner or operator must continuously maintain complete and accurate records of the specific location, operational status, condition, and type of

petroleum products stored at the owner's or operator's principal business address or location. At any given time, the records must include the required tank information for at least the preceding five years. Such records must be readily accessible and available for inspection upon request by agency personnel; and

(3) any [Any] movable or mobile tank which is registered at the owner's or operator's business address or location, rather than at the actual facility location, must be permanently and legibly labeled with the agency's designated identification number for such tank by painting, decals, tags, or other permanent identification method.

(g) Inadequate information. When any of the required AST registration information submitted to the agency is determined to be inaccurate, unclear, illegible, incomplete, or otherwise inadequate, the agency may require the owner and/or operator to submit additional information. An owner and/or operator must submit any such additional information within 30 days of receipt of such request.

(h) Temporary delivery authorization.

(1) Upon receipt of a TCEQ [TNRCC] construction notification form indicating pending installation of a new or replacement AST system(s), the agency will issue a temporary delivery authorization for that tank system(s).

(2) The temporary delivery authorization is valid for no more than 90 days after the first delivery of petroleum product into the new or replacement AST system.

(3) The AST owner and operator are responsible for maintaining complete and accurate records of the date of the first deposit of petroleum product into a new or replacement AST, as well as the date that the initial 90-day period expires. The bill of lading for the first delivery of regulated substance into any new or replacement AST at the facility must be attached to the temporary delivery authorization for that facility.



## **SUBCHAPTER G: TARGET CONCENTRATION CRITERIA**

### **§334.208**

#### **Statutory Authority**

The amendment is proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under this code and other laws of this state; and TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule.

The proposed amendment is administrative in nature and includes updates to references to the commission, from the Texas Natural Resource Conservation Commission to Texas Commission on Environmental Quality, which changed in House Bill 2912, 77th Texas Legislature, 2001, and Senate Bill 318, 77th Texas Legislature, 2001.

#### **§334.208. Model Institutional Controls.**

This is an example of the language the agency would accept for deed restrictions, etc., that address residual contamination left at a given location. In some instances an institutional control is an acceptable alternative to further remediation,

but adequate notice via a deed restriction, etc., is needed for the protection of current and future property owners.

Figure: 30 TAC §334.208

[Figure: 30 TAC §334.208]

**Model Institutional Control for Properties.**

STATE OF TEXAS

\_\_\_\_\_ COUNTY

**NOTICE OF (type of substance) CONTAMINATED SITE**

KNOW ALL MEN BY THESE PRESENTS THAT:

Pursuant to the rules and/or requirements of the Texas [Natural Resource Conservation] Commission on Environmental Quality ("TCEQ") [("TNRCC")], this document is hereby filed in the Deed Records of \_\_\_\_\_ County, Texas in compliance with the said requirements of the TCEQ [TNRCC]:

**I**

This notice pertains to the tract of land (hereinafter, the "Property") described within Exhibit "A" attached hereto and incorporated herein as if set forth at length. The

Property is located at \_\_\_\_\_, in \_\_\_\_\_, (\_\_\_\_\_ County), Texas.

The Property is the former location of a storage tank system that leaked and released (type of substance) into the (list all affected media). Residual subsurface contamination remains at the Property. Notwithstanding such residual contamination, the TCEQ [TNRCC] has determined that no additional remediation of the Property is required as of the date of this filing, subject to the provisions of Paragraph II below regarding the use of the Property.

## II

Cleanup levels established for the Property were based on current and future use of the site for (residential or commercial/industrial) purposes. Without limitation of any other permissible uses, the use of the Property is suitable for (residential or commercial/industrial) purposes. The corrective action plan (does/does not) require continued (post closure care, engineering control measures, or legal control). (Describe (Add next sentence when the terms of the institutional control place use conditions on the affected area.) Notwithstanding the foregoing, the current or future owner shall notify the TCEQ [TNRCC] in writing at least 120 days prior to changes in site use or site condition which violate the terms of this notice.

The corrective action plan developed for this site reduces site risks to meet protection requirements for the site conditions at the time of this filing. However, persons who will be conducting subsurface construction activities such as, but not in way of limitation, the excavation of soils, installation or repair of subsurface utilities,

installation of foundation piers, groundwater extraction, or other such activity may encounter the soils, soil vapors, or groundwater which have been affected by the release. The owner of the Property at the time of any future subsurface construction activities must comply with all environmental, worker protection and other laws, rules and regulations then applicable to the Property.

### III

The current owner of the Property and/or any facility thereon is (Landowner), whose address is (Street address), (City), (State) (Zip) where more specific information may be obtained from the agents or assigns thereof. The current operator of the Property and/or any facility thereon is (Operator), whose address is (Street address), (City), (State) (Zip).

### IV

This deed notice is not a representation or warranty by the TCEQ [TNRCC] as to the suitability of the Property described within Exhibit A for any particular use or purpose, nor does it constitute any guarantee by the TCEQ [TNRCC] that additional remediation will not be required in the future. Further information concerning this matter may be found in the TCEQ [TNRCC] Underground Storage Tank Notice of Registration No. \_\_\_\_\_ file and Leaking Petroleum Storage Tank ("LPST") No. \_\_\_\_\_ file, which are available for inspection upon request at the office of the TCEQ [TNRCC] in Austin, Texas.

EXECUTED this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Landowner or Authorized Representative

By:

STATE OF  
COUNTY OF

This instrument was acknowledged before me on \_\_\_\_\_, 20\_\_\_\_, by (Owner).

Notary Public in and for the State of  
(State)

My Commission Expires:

Typed or Printed Name of Notary

**SUBCHAPTER I: UNDERGROUND STORAGE TANK ON-SITE SUPERVISOR LICENSING  
AND CONTRACTOR REGISTRATION  
§334.407, §334.424**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under this code and other laws of this state; and TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule.

The proposed amendments are administrative in nature and include updates to references to the commission, from the Texas Natural Resource Conservation Commission to Texas Commission on Environmental Quality, which changed in House Bill 2912, 77th Texas Legislature, 2001, and Senate Bill 318, 77th Texas Legislature, 2001.

**§334.407. Other Requirements for an Underground Storage Tank Contractor.**

(a) A registered underground storage tank (UST) contractor is required to maintain insurance and net worth requirements, as required by §30.315 of this title

(relating to Qualifications for an Initial Registration), throughout the period that the contractor holds a valid registration from the executive director.

(b) A UST contractor subject to the provisions of this subchapter employed or otherwise engaged by a UST owner or operator (or by any other person representing to be the UST owner or operator) to conduct the installation, repair, or removal of a UST shall comply with all applicable technical standards of Subchapter C of this chapter (relating to Technical Standards) and Chapter 213 of this title (relating to Edwards Aquifer).

(c) Compliance with the provisions of this subchapter by a registered contractor shall not relieve such contractor from the responsibility of compliance with all applicable regulations legally promulgated by the United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration, United States Department of Transportation, Texas Department of State Health Services [Health], Texas Department of Insurance (including state fire marshal), Railroad Commission of Texas, Texas Department of Agriculture, State Comptroller, Texas Department of Public Safety, Texas [Natural Resource Conservation] Commission on Environmental Quality, and other federal, state, and local governmental agencies or entities having appropriate jurisdiction.

(d) A UST contractor must have an on-site supervisor who is licensed by the agency under this subchapter at the site at all times during the critical junctures of the installation, repair, or removal, as defined in §30.307 of this title (relating to Definitions).

(e) A UST contractor must prominently display the UST contractor registration number on all bids, proposals, offers, and installation drawings.

**§334.424. Other Requirements for an On-Site Supervisor.**

(a) A licensed on-site supervisor subject to the provisions of this subchapter that is engaged in the installation, repair, or removal of underground storage tanks (USTs) shall be required to comply with all applicable technical standards of Subchapter C of this chapter (relating to Technical Standards) and Chapter 213 of this title (relating to Edwards Aquifer).

(b) Compliance with the provisions of this subchapter by a licensed on-site supervisor shall not relieve such licensee from the responsibility of compliance with all applicable regulations legally promulgated by the United States Environmental Protection Agency [EPA], United States Occupational Safety and Health Administration, United States Department of Transportation, Texas Department of State Health Services [Health], Texas Department of Insurance (including state fire marshal),



Railroad Commission of Texas, Texas Department of Agriculture, State Comptroller, Texas Department of Public Safety, Texas [Natural Resource Conservation] Commission on Environmental Quality, and other federal, state, and local governmental agencies or entities having appropriate jurisdiction.

(c) A licensed on-site supervisor who offers to undertake, represents to undertake, or does undertake the installation, repair, or removal of a UST shall either be registered as a UST contractor in accordance with this subchapter, or be employed by a registered UST contractor.

**SUBCHAPTER K: STORAGE, TREATMENT, AND REUSE PROCEDURES FOR  
PETROLEUM-SUBSTANCE CONTAMINATED SOIL  
§§334.491, 334.496, 334.499**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under this code and other laws of this state; and TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule.

The proposed amendments are administrative in nature and include updates to references to the commission, from the Texas Natural Resource Conservation Commission to Texas Commission on Environmental Quality, which changed in House Bill 2912, 77th Texas Legislature, 2001, and Senate Bill 318, 77th Texas Legislature, 2001.

**§334.491. Notice to Owners or Operators.**

(a) Written notice shall be provided in accordance with this section to any person, including the tank owner and operator, with any offer to perform any services

of storage, treatment, or reuse of petroleum-substance contaminated soil proposed after December 27, 1996 [the effective date of these rules].

(b) The notice shall contain the following:

(1) the facility registration number issued pursuant to this subchapter's registration requirements;

(2) the following disclaimer reproduced in its entirety: "The registration of a storage or treatment facility by the Texas [Natural Resource Conservation] Commission on Environmental Quality (TCEQ) does not constitute endorsement, licensing, or promotion of any storage or treatment facility. Registration does not imply that the TCEQ [Texas Natural Resource Conservation Commission] guarantees the quality of the work performed or that the cost of the work will be reimbursed."

**§334.496. Shipping Procedures Applicable to Generators of Petroleum-Substance Waste.**

(a) No generator shall transport petroleum-substance waste from the generating site unless the waste has been properly sampled to determine the levels of all possible contaminants in the waste. Necessary documentation shall, at a minimum, consist of documentation on the sampling, handling, chain-of-custody documentation, and copies

of signed laboratory reports on samples collected from the specified wastes that contain results of analysis for:

(1) the major components of the petroleum-substance waste such as benzene, toluene, ethylbenzene [ethyl benzene], total xylenes, and total petroleum hydrocarbons or the major components of total petroleum hydrocarbons; and

(2) any other contaminants as specified by the agency based on specific conditions of the generating site.

(b) No generator of petroleum-substance waste within the State of Texas shall allow the transport of such wastes to an off-site waste storage, treatment, reuse, or disposal facility unless the following requirements are met:

(1) a Texas [Natural Resource Conservation] Commission on Environmental Quality (TCEQ) [(TNRCC)] petroleum-substance manifest is initiated, to include all applicable information, by the generator; and

(2) the generator designates on the manifest at least one facility or area legally authorized to receive the waste. A generator may also designate one alternate facility or area which is legally authorized to receive the waste in the event an emergency prevents delivery of the waste to the primary designated facility. If the

transporter is unable to deliver the waste to either the designated facility or the alternate facility, the generator shall either immediately designate another facility for receipt or instruct the transporter to immediately return the waste. Upon such redesignation by the generator, the generator shall immediately prepare an amended waste manifest.

(c) No generator of petroleum-substance waste from outside of the State of Texas shall allow transport of waste into the State of Texas unless the following requirements are met:

(1) a TCEQ [TNRCC] petroleum-substance manifest is initiated by the generator to include all applicable information;

(2) the manifest shall accompany the waste to the receiving facility; and

(3) the waste is classified as non-hazardous [nonhazardous] by the state in which it is generated.

(d) At the time of waste transfer, the generator or generator's authorized representative shall:

(1) sign the manifest by hand;

(2) obtain the handwritten signature of the initial transporter and date of acceptance on the manifest;

(3) retain one copy, in accordance with §334.497 of this title (relating to Recordkeeping and Reporting Procedures Applicable to Generators); and

(4) give the transporter the remaining copies of the manifest.

**§334.499. Shipping Requirements Applicable to Owners or Operators of Storage, Treatment, or Disposal Facilities.**

(a) No owner or operator of a storage, treatment, or disposal facility may accept delivery of petroleum-substance waste for storage, treatment, or disposal unless:

(1) a Texas [Natural Resource Conservation] Commission on Environmental Quality (TCEO) [(TNRCC)] Petroleum Storage Tank (PST) - Waste Manifest accompanies the shipment which designates that facility to receive the waste;

(2) the facility owner or operator signs the PST-Waste Manifest and immediately gives at least one copy of the signed PST-Waste Manifest to the transporter;

(3) the facility owner or operator retains one copy of the PST-Waste Manifest in accordance with §334.500 of this title (relating to Recordkeeping Requirements Applicable to Owners or Operators of Storage, Treatment, or Disposal Facilities); and

(4) within 30 days after receipt of the waste, the facility owner or operator sends a copy of the PST- Waste Manifest to the generator.

(b) When a facility or reuse area receives petroleum-substance waste accompanied by a PST-Waste Manifest, the facility owner or operator, or his agent, or the owner or operator of the property designated for the reuse area shall note any significant discrepancies on each copy of the PST-Waste Manifest.

(1) Significant discrepancies are differences between the quantity or type of waste designated on the PST-Waste Manifest and the quantity or type of waste a facility actually received. Significant discrepancies in type of waste are obvious differences which can be discovered by inspection or waste analysis.

(2) Upon discovering a significant discrepancy, the facility owner or operator shall attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved

within 15 days after receiving the waste, the facility owner or operator shall, within five days, submit to the agency a letter describing the discrepancy and attempts to reconcile it, and a copy of the PST-Waste Manifest at issue. The facility owner or operator shall ensure that the waste is a petroleum-substance waste eligible for acceptance by the facility pursuant to this subchapter and shall report any unreconciled discrepancies discovered during any analyses or evaluation.

(c) No owner or operator of a storage, treatment, or disposal facility in Texas shall accept wastes from an out-of-state generator or location unless the following requirements are met:

(1) the waste is accompanied by legible copies of the signed TCEQ [TNRCC] PST-Waste Manifest for all wastes received pursuant to §334.496 of this title (relating to Shipping Procedures Applicable to Generators of Petroleum-Substance Waste);

(2) the facility owner or operator obtains documentation that the wastes contain only petroleum-substance contamination, have been generated from an underground or aboveground storage tank as defined in this chapter, and are classified as non-hazardous [nonhazardous] in the state where generated. This documentation shall consist of documentation on the sampling methods, sample handling, chain-of-custody documents, and legible copies of signed laboratory reports on samples



collected from the specified wastes. The number of samples shall be sufficient to characterize the entire quantity of wastes. The analyses shall include:

(A) volatiles and semi-volatiles by United States Environmental Protection Agency (EPA) Methods 8240 and 8270, respectively;

(B) toxicity characteristic listed constituents as specified in 40 Code of Federal Regulations, Part 261;

(C) organochlorine pesticides and polychlorinated biphenyls by EPA Method 8080; and

(D) any other analyses necessary to characterize the wastes or as specified by the agency; and/or

(3) the facility owner or operator obtains documentation from the appropriate governing agency in the originating jurisdiction that the wastes are classified as non-hazardous [nonhazardous] and meet the definition of petroleum-substance wastes (as such wastes are defined in §334.2 of this title (relating to Definitions)), and provides such documentation to the agency prior to receiving the out-of-state soils.

(d) The facility owner or operator shall not accept any wastes for storage, treatment, or disposal from an in-state generator or location which contain any contaminants above natural background levels other than petroleum substances as defined in this subchapter, unless otherwise approved by the agency. Documentation of the contaminants in the waste shall consist of a sufficient number of samples to characterize the waste and the samples shall be analyzed for all contaminants that may occur in that waste.

**SUBCHAPTER N: OPERATOR TRAINING**

**§§334.602, 334.603, 334.605**

**Statutory Authority**

The amendments are proposed under Texas Water Code (TWC), §5.012, which provides that the commission is the agency responsible for implementing the constitution and laws of the state relating to the conservation of natural resources and protection of the environment; TWC, §5.103, which authorizes the commission to adopt any rules necessary to carry out its powers and duties under the TWC and other laws of this state; TWC, §5.105, which directs the commission to establish and approve all general policy of the commission by rule; TWC, §26.011, which requires the commission to control the quality of water by rule; TWC, §26.039, which states that activities which are inherently or potentially capable of causing or resulting in the spillage or accidental discharge of waste or other substances and which pose serious or significant threats of pollution are subject to reasonable rules establishing safety and preventive measures which the commission may adopt or issue; TWC, §26.341, which states that it is the policy of this state to maintain and protect the quality of groundwater and surface water resources in the state from certain substances in underground and aboveground storage tanks that may pollute groundwater and surface water resources, and requires the use of all reasonable methods, including risk-based corrective action to implement this policy; and TWC, §26.345, which authorizes the commission to develop a regulatory program and to adopt rules regarding underground and aboveground storage tanks.

The United States Environmental Protection Agency has amended the rules pertaining to underground storage tanks (40 Code of Federal Regulations Parts 280 and 281) on technical requirements and state program approval effective October 13, 2015. TWC, §26.357, requires standards and rules concerning underground storage tanks adopted by the Texas Commission on Environmental Quality to be at least as stringent as federal requirements. The rules implement or track as closely as possible the amended federal rules.

**§334.602. Designation and Training of Classes of Operators.**

(a) Owners or operators shall identify and designate for each underground storage tank (UST) facility including unmanned facilities, at least one named individual for each class of operator - Class A, Class B, and Class C. All individuals designated as a Class A, B, or C operator shall, at a minimum, be trained and certified in accordance with this subchapter. For the purposes of this subchapter, the terms "Class A operator," [Operator"], "Class B operator," [Operator"], "Class C operator," [Operator"], "certified operator," [Certified Operator]" or "designated operator [Designated Operator]" are terms specific to the training requirements of this subchapter. The term "operator" used without these descriptors is the same as the term "operator" used in this chapter [Chapter 334] generally and as specifically defined in §334.2(75) [§334.2(70)] of this title (relating to Definitions).

(1) Owners and operators may designate different individuals for each class of operator, or one individual for more than one of the operator classes.

(2) Any individual designated for more than one operator class shall be trained and certified for each operator class, except that training and certification as a Class B operator also entitles that individual to certification as a Class A operator.

(3) An individual may be designated as a Class A operator [Operator] for one or more facilities. An individual may be designated as a Class B operator [Operator] for one or more, but not to exceed 50 facilities. An individual Class C operator must be specifically trained for each facility.

(4) During hours of operation, UST facilities must have at least one certified operator (either a Class A, Class B, or Class C operator) present at the UST facility, except when a UST facility is unmanned. A UST facility is considered unmanned when during the normal course of business there is routinely no attendant present at the facility who could respond to alarms or emergencies related to the UST system. (Examples of unmanned UST facilities include, but are not limited to, card lock or card access fueling stations, telecommunication towers or utility transfer stations serviced by emergency generator USTs, and unattended UST systems located at industrial facilities.) Unmanned facilities must have weather resistant signage clearly

visible from any dispenser which instructs users with regard to basic safety procedures, provides the customer with a 24-hour telephone contact number monitored by a Class A, B, or C operator for the facility and provides instruction on when to call 911.

(b) The three classes of operators are identified as follows.

(1) Class A operator [Operator].

(A) Functions. A Class A operator of a UST facility is an individual who typically has primary responsibility for ensuring the proper operation and maintenance of the UST systems, particularly in the capacity of managing resources and personnel necessary to achieve and maintain compliance with all UST regulations.

(B) Qualifications and training [Training]. Class A operators must be trained in and have a general knowledge of the requirements of applicable UST regulations, including, but not limited to registration, system components, product compatibility, spill and overflow prevention, corrosion protection, release detection, recordkeeping, notification, release reporting and response, temporary and permanent closure, operator training, and financial responsibility.

(2) Class B operator [Operator].

(A) Functions. A Class B operator of a UST facility is an individual who ensures the implementation of all applicable requirements of these regulations in the field and implements the day-to-day aspects of the operation and maintenance of, and recordkeeping for, UST systems.

(B) Qualifications and training [Training]. Class B operators must be trained in and have detailed knowledge of the requirements of applicable UST regulations, including, but not limited to registration, system components, product compatibility, spill and overfill prevention, corrosion protection, release detection, recordkeeping, notification, release reporting and response, temporary and permanent closure, operator training and financial responsibility. A UST facility owner or operator may designate as its Class B operator a third party (i.e. an individual who is an independent contractor or consultant and is not affiliated with the facility owner or operator) only if that individual is (in accordance with Chapter 334, Subchapter I and with Chapter 30, Subchapter I of this title (relating to Underground Storage Tank On-Site Supervisor Licensing and Contractor Registration; and Underground Storage Tank On-Site Supervisor Licensing and Contractor Registration, respectively)) also a licensed UST on-site supervisor [On-Site Supervisor] who holds a current "A" or "A/B" license and who either is, or is employed by, a registered UST contractor [Contractor]. However, designation of an independent or not affiliated Class B operator in this

manner does not also entitle that individual to certification as a Class A operator for a facility.

(3) Class C operator [Operator].

(A) Function. A Class C operator of a UST facility is an individual designated by the UST system owner who typically controls the dispensing of fuel at the facility and is responsible for initial response to alarms, releases, spills, overfills or threats to the public or to the environment.

(B) Training. Class C operators must be trained in both general and facility-specific emergency response procedures, such as: the operation of emergency shut-off equipment; the initial response procedures following system alarm warnings; the appropriate first response actions to releases, spills, or overfills; and the notification procedures to emergency responders and to the designated Class A and Class B operators of a UST facility.

**§334.603. Acceptable Operator Training and Certification Processes.**

(a) Training. Operator training must fulfill the training requirements described for each class of operator in §334.602 of this title (relating to Designation and Training



of Classes of Operators). The following is a list of acceptable approaches to meet the operator training requirements.

(1) Acceptable training [Training] for Class A and Class B operators. Class A and Class B operators must complete a Texas Commission on Environmental Quality (TCEQ) approved operator training course or process that includes the information listed in §334.602(b)(1) or (2) of this title, respectively. Courses or processes may include in-person or on-line training performed by, contracted for, or approved by the TCEQ, and must include an evaluation of operator knowledge through testing, practical demonstration, or other tools deemed acceptable by the TCEQ. In order for a non-contracted provider to be approved by the agency, the provider of a training course or process must be sponsored by an association or industry organization recognized nationwide or statewide with regard to its affiliation with regulated petroleum underground storage tank (UST) systems. All providers will also be required to provide training documentation, including on-going maintenance of records of certified operators. Those records will be required to be accessible to the agency on an on-going basis.

(2) Acceptable training [Training] for Class C operators [Operators].

(A) Class B operators must provide training or ensure that the UST facility's Class C operators otherwise complete training in emergency procedures that

includes the information listed in §334.602(b)(3) of this title. Class C operator training programs may include in-class, hands-on, on-line, or any other training format deemed acceptable by the Class B operator.

(B) Class A and Class B operators must ensure that site-specific emergency procedures are maintained in an easily accessible location at the UST facility which is immediately available to the Class C operator, and that site-specific notices that include the location of emergency shut-off devices and appropriate emergency contact telephone numbers are posted in a prominent area at the UST facility that is easily visible to the Class C operator. For the purposes of this subsection, the phrase "easily accessible location" means located in a place and manner that allows a Class C operator [Operator] quick and immediate access to site-specific emergency procedures.

(b) Certification. Operators are considered certified operators after successfully completing one of the training processes listed in subsection (a) of this section.

(1) Class A and Class B operators [Operators]. Approved training providers must provide verification to all Class A and Class B operators who have successfully completed training, in the form of a written or printable electronic training certificate stating the classification and the date it was obtained. Owners and operators must ensure that training certificates are maintained at each facility, with

copies of initial or new certificates provided to the TCEQ at the time that annual self-certification [self certification] is required for that facility.

(2) Class C operators [Operators]. A designated Class B operator for a given facility must provide the facility owner or operator with signed and dated written verification in the form of a list of all Class C operators who have been trained for that facility, which includes the date of that training. Owners and operators must ensure that a current and correct list of trained Class C operators is maintained at each facility.

**§334.605. Operator Training Frequency.**

(a) Certified Class A and Class B Operators must be re-trained in accordance with §334.602 and §334.603 of this title (relating to Designation and Training of Classes of Operators; and Acceptable Operator Training and Certification Processes, respectively) within three years of their last training date.

(b) Certified Class C operators must be re-trained in accordance with §334.602 and §334.603 of this title within three years of their last training date. In addition, Class C operator training is only applicable at the specific facility for which the training was provided.

(c) If an underground storage tank (UST) facility receives a notice of violation and the agency determines that the UST facility is in significant noncompliance, the designated Class B operators for that UST facility, must attend either a Texas Commission on Environmental Quality (TCEQ) approved compliance class that addresses the noted noncompliant areas or an acceptable operator training course as specified in §334.603 of this title, within the time frame specified by the TCEQ for that violation. Class B operators are not, however, required to attend such training more than once every 12 months, regardless of the number of their designated facilities found in violation. (For the purposes of this subchapter, "significant noncompliance" is defined as the failure to provide one or more of the following in accordance with applicable TCEQ rule or Environmental Protection Agency Significant Operational Compliance guidelines: release detection, spill/overflow prevention, corrosion protection, or financial assurance.)

(d) Notwithstanding the three-year re-training requirement in subsection (a) of this section, certified Class A and Class B operators must be re-trained by April 1, 2019, with a course submitted to and approved by TCEQ after April 1, 2018.