Revisions for the rule package:
On December 22, 2008 (73 Federal Register 78199), the United States Environmental Protection Agency (EPA) finalized an alternative work practice using optical gas imaging instruments to detect fugitive emission leaks from equipment. The EPA allowed the use of the alternative work practice for numerous federal leak detection and repair (LDAR) regulations in 40 Code of Federal Regulations (CFR) Parts 60, 61, 63, and 65. Because of overlapping state rules and permit requirements with fugitive emission LDAR programs, many facilities will not be able to use the federal alternative work practice until Texas fugitive emission LDAR rules are revised and, if necessary, the sites obtain permit revisions to allow the use of the alternative work practice.

Fugitive emission LDAR rules in 30 Texas Administrative Code Chapter 115 fall under two general categories and all are incorporated in the state implementation plan (SIP). Subchapter D, Divisions 2 and 3 are general volatile organic compounds (VOC) fugitive emission LDAR rules and were implemented to satisfy reasonably available control technology (RACT) requirements of the Federal Clean Air Act (FCAA). The highly-reactive volatile organic compounds (HRVOC) fugitive emission LDAR rules are in Subchapter H, Division 3 and were implemented as part of the Houston-Galveston-Brazoria (HGB) attainment demonstration for the one-hour ozone National Ambient Air Quality Standard (NAAQS). The proposed rulemaking would revise Subchapter D, Divisions 2 and 3, and Subchapter H, Division 3 to incorporate an alternative work practice similar to the alternative work practice adopted by the EPA to allow the use of optical gas imaging instruments to detect fugitive VOC emissions leaks.

Under what authority are we proposing these changes?
The amended and new sections are proposed under Texas Water Code (TWC), §5.102, concerning General Powers, that provides the commission with the general powers to carry out its duties under the Texas Water Code; TWC, §5.103, concerning Rules, that authorizes the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code; TWC, §5.105, concerning General Policy, that authorizes the commission by rule to establish and approve all general policy of the commission; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, that authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The amended and new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, that establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, that authorizes the commission to control the quality of the state's air; and §382.012, concerning State Air Control Plan, that authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air.
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The amended and new sections are also proposed under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, that authorizes the commission to prescribe reasonable requirements for the measuring and monitoring of air contaminant emissions and THSC, §382.021, concerning Sampling Methods and Procedures, that authorizes the commission to prescribe the sampling methods and procedures to determine compliance with its rules. The amended and new sections are also proposed under FCAA, 42 United States Code (U.S.C.), §§7401 et seq., which requires states to submit SIP revisions that specify the manner in which the NAAQS will be achieved and maintained within each air quality control region of the state. The amended and new sections implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021, and FCAA, 42 U.S.C., §§7401 et seq.

Is this rulemaking required by federal rule or state statute? No. Which ones? NA

Are there any legal deadlines by which these rules must be proposed, adopted, or effective? No.

What issue(s) or problem(s) are we trying to solve?
Companies subject to the Chapter 115 LDAR rules would not be able to use optical gas imaging instruments as an alternative work practice for LDAR unless the Chapter 115 rules are revised. The proposed rule would incorporate an alternative work practice into Chapter 115 to use optical gas imaging instruments to detect fugitive VOC emission leaks in a manner similar to what is already allowed under 40 CFR Parts 60, 61, 63, and 65 LDAR regulations.

Why is it important that we do this rule package?
Use of the alternative work practice would be optional. Use of the alternative work practice is expected to result in faster detection of larger fugitive emissions leaks and faster repair of leaking equipment. If the rulemaking is not adopted, companies subject to the Chapter 115 LDAR rules would not be able to use optical gas imaging instruments as an alternative work practice for components subject to LDAR requirements under Chapter 115.

Other important background or historical information.
The rulemaking to allow an alternative work practice using optical gas imaging instruments under Chapter 115 is being proposed concurrently with a similar rulemaking for Chapter 101 to implement a supplemental leak detection program for alternative leak detection technology required by House Bill 1526 (80th Texas Legislative Session).

Scope of the rulemaking:
The proposed rulemaking would amend §§115.322 - 115.326, 115.352 - 115.357, 115.781, 115.782, and 115.786 - 115.788 and would add new §115.358 and §115.784. These proposed amended and new sections would incorporate an alternative work practice to use optical gas imaging instruments for LDAR. While the rulemaking is not required by federal rule or state statute, the proposed rulemaking would incorporate specific requirements from the federal alternative work practice in 40 CFR §60.18, either directly or by reference. In addition, specific changes are proposed to integrate the alternative work practice into the Chapter 115 LDAR rules in a manner that would be consistent with the EPA approved SIP and ensure that backsliding does not occur.

Changes required by federal rule: None.

Changes required by state statute: None.
Staff recommendations that are not expressly required by federal rule or state statute: The following are the substantive changes proposed in this rulemaking that are not required by the federal alternative work practice in 40 CFR §60.18. Staff recommends these additional requirements to ensure that personnel using optical gas imaging instruments have adequate training and to address quality assurance and enforcement concerns with the federal alternative work practice as written in 40 CFR §60.18.

- Each person operating an optical gas imaging instrument for the purposes of the alternative work practice would be required to conduct the daily instrument check - §115.358(c)(2).
- Owner or operators electing to use the alternative work practice would be required to submit notification to the appropriate Texas Commission on Environmental Quality regional office at least 30 days prior to implementation - §115.358(g).
- Operator training would be required for personnel performing the alternative work practice - §115.358(h).
- A specific subset of components (e.g., blind flanges, heat exchanger heads, sight glasses, etc.) subject to §115.781(b)(3) would be allowed an option for alternative frequencies for the annual Method 21 test required under the alternative work practice if the components are not subject to a federal LDAR Method 21 requirement under 40 CFR Parts 60, 61, 63, or 65 - §115.781(h)(6).

Other staff recommendations include specific rule amendments to ensure that allowing the alternative work practice does not result in backsliding under the FCAA. The major substantive proposed changes associated with anti-backsliding are in the HRVOC fugitive emission LDAR rules in Subchapter H, Division 3.

- For leaks more than 10,000 parts per million by volume (ppmv), rapid repair times are required under §115.782(b) and extraordinary efforts must be undertaken within a shorter time period to qualify for delay of repair under §115.782(c). The proposal would require any leak detected using the alternative work practice to meet the more stringent time limits of §115.782(b) and §115.782(c) unless a Method 21 test is done to demonstrate the leak is 10,000 ppmv or less.
- The rule proposal would retain the third-party audit requirements of §115.788; however, an alternative audit procedure would be required if the company is using the alternative work practice.
- Consistent with EPA guidance, §115.782(c) requires companies to use EPA correlation equations for calculating emissions. For leaks detected using the alternative work practice, the company would be required to use the 100,000 ppmv pegged emission rates from the same section of the EPA guidance document currently referenced in the rule.

Staff is recommending that substantive changes not be made to existing rule language not associated with the alternative work practice. The proposed rule would make non-substantive changes to the rule sections to conform to Texas Register style and format requirements. In addition, the proposed rulemaking would make a non-substantive correction to the third-party audit exemption in §115.787(g) to change the exemption from "100 components in HRVOC service" to "100 valves in HRVOC service" to be consistent with prior rulemaking that made the third-party audit requirements only applicable to valves in HRVOC service.

Impact on the regulated community:

Who will be affected? Subchapter D, Division 2 applies to petroleum refineries in Gregg, Nueces, and Victoria Counties. Subchapter D, Division 3 applies to the following facility types in the Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and HGB areas as defined in §115.10: petroleum refineries; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing processes; or natural gas/gasoline processing operations. Subchapter H, Division 3 applies to the following facility types in the HGB area as defined in §115.10 that HRVOC is a raw material, intermediate, final product, or in a waste stream: petroleum refineries; synthetic organic chemical, polymer, resin, or methyl-tert-butyl ether manufacturing
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processes; or natural gas/gasoline processing operations. Use of the Chapter 115 alternative work practice would be optional; therefore, companies that are currently subject to these rules would be able to choose to use either the current Method 21 work practice or the alternative work practice to comply with Chapter 115 LDAR requirements.

**Does it create a group of affected persons who were not affected previously?** No. **How?** NA

**Will there be a fiscal impact?** Use of the Chapter 115 alternative work practice under the proposed rule would be optional, so there is not a mandatory fiscal impact. There are potential costs associated with a facility implementing the Chapter 115 alternative work practice, such as purchase of an optical gas imaging instrument and the cost of the training requirements. It is assumed that companies subject to Subchapter D, Divisions 2 or 3, or Subchapter H, Division 3 will only choose to use the alternative work practice if changing work practices will result in a cost savings for the company. Staff recommended changes that are not included in the federal alternative work practice, such as training requirements, are not expected to have a significant fiscal impact. **If so, estimate.** If a business chooses to use the alternative work practice under the proposed rules, it could spend as much as $108,000 for a camera, associated hardware, camera maintenance, training (for four operators), and recordkeeping in the first year of implementation. The initial training, a proposed requirement in this rulemaking that is not included in the federal alternative work practice, is estimated to be $7,800. In years two through five, annual costs for maintenance and required training could be as much as $9,000, with $4,000 for the required training and the remaining $5,000 for maintenance. Alternatively, a business could use an outside contractor for detecting fugitive emissions using the alternative work practice. Assuming a $37 per hour labor rate for a contracted measurement technician and an 83% reduction in measurement time, staff estimates that the alternative work practice would cost $12.33 per thousand components measured versus $74 for the current Method 21 practice. This could result in estimated savings of $61.67 per thousand components measured.

**Impact on the public:**

**Who will be affected?** The general public will not be affected by the rulemaking.

**Does it create a group of affected persons who were not affected previously?** No. **How?** NA

**Will there be a fiscal impact?** No. **If so, estimate.** NA

**Impact on agency programs:**

The Office of Compliance and Enforcement would need to revise LDAR investigation protocols to account for the differences in implementation and recordkeeping between the alternative work practice and the standard Method 21 work practice. The Emissions Assessment Section of the Chief Engineer's Office would need to revise emissions inventory guidance documents to provide guidance for sites using the alternative work practice because current guidance does not account for optical gas imaging instruments which are not capable of quantifying fugitive emissions. Facilities subject to the Chapter 115 LDAR rules will also likely have LDAR requirements in the site's New Source Review (NSR) air permit based on the Method 21 work practice. Air Permits Division would need to develop an alternative work practice for implementation through the permitting program and may need to perform case-by-case analyses to determine if allowing the alternative work practice is appropriate considering a site's existing LDAR requirements.
Stakeholder meetings:

Have any stakeholder meetings been held? Yes. Stakeholder meetings were held in Irving (June 23, 2009), Austin (June 25, 2009), and Houston (June 26, 2009). The Austin stakeholder meeting included video teleconferences for Beaumont, Corpus Christi, El Paso, and Tyler.

With whom? The stakeholder meetings were open participation. Attendees included industry representatives, consultants, and environmental groups.

What were the general sentiments? Stakeholders supported including an alternative work practice approach under the Chapter 115 LDAR rules. Stakeholders commented that flexibility was needed for the implementation of an alternative work practice program and asked whether facilities would be allowed to use a combination of the alternative work practice and the standard Method 21 work practice. Some stakeholders also commented about permit LDAR requirements and suggested the alternative work practice should be allowed under the agency permitting program. Additionally, a stakeholder suggested the rule specifically include language that clarifies agency permit changes would not be required for a facility to use the alternative work practice.

Were any changes made in response to stakeholder concerns? While the rule proposal was not specifically planned to be an "all-in or all-out" approach for implementing the alternative work practice, the proposed rule amendments and preamble were written to specifically state that a mixed approach was allowed and companies could select the components that were included in the alternative work practice. After stakeholders expressed concern about the need for flexibility in implementation, staff discussed the mixed implementation issue with EPA. EPA indicated that a mixed implementation would be consistent with the intent of the federal alternative work practice.

No changes to the proposed rule were made regarding stakeholders' comments and suggestions concerning the agency's permit LDAR requirements. Chapter 115 is a separate regulatory requirement from the NSR permitting program and any changes to allow the alternative work practice under a site's NSR permit must be made through the NSR permitting process.

Policy issues:

What policy issues are affected? None.

Are any policies that are not currently based on rule being made into a rule? No.

What are the consequences if this rulemaking is not approved to go forward? Companies that are subject to federal LDAR regulations in 40 CFR Parts 60, 61, 63, or 65 and Chapter 115 LDAR rules would not be able to use optical gas imaging instruments as an alternative work practice for any components subject to Chapter 115.

Are there alternatives? Yes. The commission could decide not to adopt the Chapter 115 alternative work practice.

Potentially controversial matters: The proposed rulemaking would specify some requirements that are not included the federal alternative work practice in 40 CFR Part 60, such as training requirements, additional quality assurance procedures, and a notice requirement prior to implementation. Companies may object to the additional requirements.
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Video records of leak surveys conducted using optical gas imaging instruments are required by the federal alternative work practice and would be required in the Chapter 115 alternative work practice. If copies of video records are obtained from investigations on sites using the alternative work practice, companies may consider the video images to be confidential information.

In February 2009, the American Petroleum Institute submitted a request for reconsideration of the alternative work practice adopted by the EPA in December 2008. Additional rulemaking for the Chapter 115 alternative work practice may be necessary if the EPA does re-open the federal alternative work practice regulation for comment and makes changes to the regulation in 40 CFR §60.18.

Key points in proposed rulemaking schedule:

- **Anticipated proposal date:** December 9, 2009
- **Anticipated Texas Register publication date:** December 25, 2009
- **Public hearing date (if any):**
  - January 19, 2010, Irving
  - January 20, 2010, Austin
  - January 21, 2010, Houston
- **Public comment period:** December 14, 2009 - January 25, 2010
- **Anticipated adoption date:** June 2, 2010

**Agency contacts:**
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**Attachments**
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- Executive Director’s Office
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- Kevin Patteson
- Curtis Seaton
- Office of General Counsel
- Robert Gifford
- Jessica Rawlings