

The Texas Commission on Environmental Quality (commission) proposes the repeal of §§115.541, 115.542, and 115.545; proposes new §§115.540 - 115.542, and 115.545; and proposes amendments to §§115.543, 115.544, 115.546, 115.547, and 115.549.

If adopted, the amended, repealed, and new sections will be submitted to the United States Environmental Protection Agency (EPA) as a revision to the state implementation plan (SIP).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULES

Chapter 115, Subchapter F, Division 3, regulates the degassing or cleaning of storage tanks, transport vessels, and marine vessels. Compliance with the rule is currently required for affected sources in the Houston-Galveston-Brazoria ozone nonattainment area and the Beaumont-Port Arthur ozone nonattainment area. Although not currently effective, the Chapter 115 degassing rules also apply in El Paso County as contingency measures that could become effective if the commission determines the rules are necessary to comply with federal air quality standards.

On May 21, 2010, the commission published notice in the *Texas Register* (35 TexReg 4268) requiring affected sources in Collin, Dallas, Denton, and Tarrant Counties to comply with the current Chapter 115 degassing and cleaning rules no later than May 21, 2011. The rules in Chapter 115, Subchapter F, Division 3, were adopted as a contingency measure for these four counties in the Dallas-Fort Worth (DFW) area on April 27, 1994, and published in the *Texas Register* on May 13, 1994 (19 TexReg 3703). The contingency rules are being implemented as a result of the DFW area failing to attain the 1997 eight-hour ozone National Ambient Air Quality Standard (NAAQS) by the June 15, 2010, attainment deadline

based on monitoring data. The preliminary ambient ozone monitoring data from 2007, 2008, and 2009, indicate that the DFW area has an ozone design value of 86 parts per billion, thereby exceeding the 1997 eight-hour ozone standard of 0.08 parts per million.

Beginning in April 2009, a series of petitions for rulemaking were submitted to the commission regarding the more stringent degassing and cleaning requirements that became effective in the Houston-Galveston-Brazoria area on January 1, 2009. These petitions were withdrawn before the scheduled agenda for the commission's consideration; however, while evaluating the merit of these petitions, staff identified several portions of the degassing and cleaning rules that could be clarified to facilitate compliance and enforcement. In the following months, numerous questions were also raised by affected regulated entities, consultants, and vendors regarding compliance with the requirements in Chapter 115, Subchapter F, Division 3. The proposed rulemaking would address the concerns raised by stakeholders by revising Chapter 115, Subchapter F, Division 3, to: clarify the degassing and cleaning rule requirements for sources in all affected areas; provide additional flexibility for affected owners or operators by allowing for the use of alternative control options; and facilitate rule enforcement.

General Clarification of Rule Requirements

The proposed rulemaking would reformat the existing rules in Chapter 115, Subchapter F, Division 3, to simplify and clarify the requirements. Some of these formatting changes include: proposing new §115.540 to specify the rule applicability and define terms commonly used in this division; repealing §115.541 and §115.542; and proposing new §115.541 and §115.542 to consolidate the emission specifications and control requirements. In addition, the proposed rules would make other non-

substantive revisions to update the rule language to current *Texas Register* style and format requirements.

Additional details regarding the general reformatting and clarification changes are discussed in the SECTION BY SECTION DISCUSSION portion of this preamble.

Additional Control Options

One concern raised by stakeholders was that the existing rules do not adequately address the use of several types of control technologies that could achieve equivalent volatile organic compounds (VOC) emission reductions. The existing rules require that VOC vapors be routed to a device that maintains a control efficiency of at least 90%. The proposed rules would specifically provide for the use of the following equivalent control options to comply with the emission specifications in the rules.

The proposed rules would allow for the use of flares that are designed and operated in accordance with 40 Code of Federal Regulations (CFR) §60.18(b) - (f). In addition to complying with the operating parameters in 40 CFR §60.18, the commission is proposing that flares used during degassing or cleaning operations must be lit at all times when VOC vapors are routed to the device. Although 40 CFR §60.18 requires the pilot to be lit at all times and requires monitoring of the flare pilot flame, the commission is also specifically requiring the flare flame to be lit to clarify that the intent of the rules is for both the flare flame and the pilot to be lit at all times when VOC vapors are routed to the device. The commission is requesting comment on other options to ensure the flare is lit at all times when VOC vapors are routed to the device.

The existing rules require VOC vapors from affected tanks or vessels to be routed to a control device until

the concentration is less than 34,000 parts per million by volume (ppmv) expressed as methane.

However, as the VOC vapor concentration approaches 34,000 ppmv, there may not be sufficient heat content to meet the minimum net heating value requirements in 40 CFR §60.18. Therefore, it may be necessary to monitor the net heating value of the VOC vapors routed to the flare to ensure there is sufficient energy available to support combustion. The proposed rules would provide the following options for demonstrating compliance with the minimum net heating value requirements in 40 CFR §60.18 during degassing or cleaning operations: continuously monitor the net heating value of the VOC vapors routed to the flare; assume no net heating value from the VOC vapors routed to the flare and continuously monitor the supplemental fuel added; or use calculations to demonstrate sufficient net heating value of the VOC vapors routed to the flare. The commission is requesting comment on other methods to validate that the VOC vapors routed to flare meet the minimum net heating value requirements in 40 CFR §60.18 at all times when VOC vapors routed to the device.

The proposed rules would allow for the use of recirculation systems as an option for meeting the control requirements of the rules. The proposed rules would define a recirculation system as a system that is vapor-tight and composed of piping, ductwork, connections, flow-inducing devices, and a control device. The recirculation system conducts VOC vapor from a storage tank, transport vessel, or marine vessel to a control device and conducts the exhaust from the outlet of the control device back into the same storage tank, transport vessel, or marine vessel. Currently, the commission is aware of two types of recirculation systems available for degassing or cleaning operations that use condensation or absorption processes to transfer VOC from the vapor space inside the tank or vessel into liquid form.

In order to minimize pressurization in the tank or vessel, which could cause increased emissions, the proposed rules would require that the recirculation system does not cause the pressure inside the tank or vessel to exceed one inch water pressure at any time during the degassing or cleaning operation. The proposed rules would also require continuous monitoring of the tank pressure or the continuous monitoring of the flow rate at the inlet and outlet of the control device. To ensure that the recirculation system is vapor-tight during operation, the commission is proposing to require the recirculation system to be monitored for VOC leaks using the procedure in Method 21 (40 CFR Part 60, Appendix A-7) and to begin this monitoring within one hour after beginning any degassing or cleaning operation. The proposed rules would also require continuous monitoring of the outlet gas temperature of a condensation system that is part of a recirculation system to ensure that the temperature is below the recirculation system manufacturer's recommended operating temperature for controlling the VOC vapors routed to the device. The commission is requesting comment on the appropriate operating temperature for a condensation system and any instances when the manufacturer would not specify an appropriate operating temperature.

The commission is proposing an option to limit the VOC concentration at the outlet of the control device to less than 500 ppmv at 0% oxygen, dry basis, expressed as methane. The commission is proposing this option to limit the VOC concentration of the control device exhaust gas as an equivalent or more stringent alternative to using a control device that maintains a control efficiency of at least 90%. The commission is proposing this option to provide affected owners or operators with an alternative control option that would alleviate some of the testing and monitoring requirements for devices that can maintain a low exhaust gas concentration. The commission is requesting comment on using this maximum exhaust concentration as an equivalent alternative to demonstrate the 90% control efficiency.

A stakeholder suggested allowing the use of low vapor pressure liquids as an alternative to routing the VOC vapors to a control device. The commission is requesting comment on the appropriateness of this approach for controlling VOC vapors during degassing or cleaning operations as well as the necessary parameter monitoring and restrictions necessary if this option is allowed. Additionally, the commission is requesting comment regarding control devices that are not specifically addressed under the proposed rules.

Clarification of Monitoring and Testing Requirements

One of the concerns raised by stakeholders was that the existing rules do not adequately address the monitoring and testing requirements necessary to demonstrate compliance with this division. The proposed rules would specifically require monitoring and testing requirements.

The commission is proposing to clarify the procedure for taking the VOC concentration measurements required in this division. The proposed rules would specify that the VOC concentration measurements required to determine if the tank or vessel can be vented to atmosphere without control for the remainder of the degassing or cleaning operation must be taken over five minutes. Further, none of the measurements can exceed the thresholds established in the rules. This clarification is consistent with the concentration monitoring requirements in the Refinery MSS Model Permit.

The current rules for the Houston-Galveston-Brazoria area require the owner or operator to monitor the VOC concentration once every 12 hours for five readings after the tank or vessel is disconnected from the

control device. This requirement was added in 2007 to address concerns that if liquid remains in the tank or vessel, then the VOC concentration could increase above the limits specified in the rules after the control device is disconnected. Stakeholders have commented that this requirement is unnecessary and overly burdensome. In response to these concerns, the commission is proposing to provide additional options for demonstrating that the VOC concentration inside the tanks or vessel does not increase above the concentration limit established in the control requirements. Specific details regarding these additional options are included in the SECTION BY SECTION DISCUSSION portion of this preamble.

Additionally, the commission is proposing to expand these requirements to all areas subject to this division; however, the commission is evaluating the necessity of retaining this requirement in the rules. If the additional monitoring is in fact necessary to ensure effectiveness of the rule, then it is necessary for all affected areas not just the Houston-Galveston-Brazoria area. If VOC concentrations increasing after disconnecting the control device is not an actual phenomenon and this requirement does not actually enhance rule effectiveness, then the additional monitoring requirement is unnecessary and should be removed. Therefore, the commission is requesting comment on the necessity of including this provision for any affected areas.

The commission is specifically proposing to require control efficiency demonstrations conducted in accordance with the approved test methods in §115.545 for any control device used to comply with the option to maintain a control efficiency of at least 90% when the device is being used for degassing or cleaning operations. The commission is proposing to require an initial control efficiency demonstration; however, the proposed demonstration is intended to be a clarification of the existing requirements and is not intended to impose any additional requirements on affected sources. The commission is also

proposing to require the control device to be retested within 60 days after any modification that could reasonably be expected to affect the efficiency of a control device. The commission is also proposing to require a periodic control efficiency demonstration to be conducted at least once every 60 months for a portable control device. These retesting provisions are necessary to demonstrate that the control device continues to meet the 90% control efficiency requirements after modification or if substantial time has passed since the previous demonstration. Additionally, it has come to the commission's attention that many of the control devices used to control emissions during degassing operations are portable devices. It is not the commission's intent that moving a portable control device from one tank or vessel to another will trigger the 60-day retesting requirement. The commission is proposing to exempt a portable thermal oxidizer from the periodic control efficiency demonstration if the combustion chamber temperature is at least 1,400 degrees Fahrenheit, and the flow rate of the VOC vapors routed to the device is limited to assure at least a 0.5 second combustion chamber residence time when the device is in use. The commission is requesting comment on the appropriate temperature and residence time for this option. The commission is also requesting comment on any other devices that should be afforded similar options to the periodic testing requirements.

The commission is also proposing to allow the use of additional test methods to demonstrate compliance with this division. The proposed rules would allow for the use of test methods not currently included in the existing rules. The proposed rules would also allow test methods currently available for use by affected sources in the Houston-Galveston-Brazoria area to be used by affected sources in all areas subject to this division.

The commission is proposing to clarify the storage temperature used for determining the true vapor pressure of volatile organic liquids stored at or above ambient temperatures. The existing rules requires the use of actual storage temperature to determine the true vapor pressure of volatile organic liquids stored in an affected storage tank, transport vessel, or marine vessel. The commission is proposing to require using the higher of either 95 degrees Fahrenheit or the actual storage temperature for determining true vapor pressure of volatile organic liquids. The commission is proposing to allow the actual storage temperature of an unheated tank or vessel to be determined using the maximum local monthly average ambient temperature as reported by the National Weather Service. The commission is also proposing to allow the actual storage temperature of a heated tank or vessel to be determined using either the measured temperature or the temperature set point of the tank or vessel. The commission is proposing the use of 95 degrees Fahrenheit to establish consistency with the Refinery MSS Model Permit. While this change is not expected to substantively affect the applicability of the rules for sources in the areas already subject to the rules, it is possible that some sources could be made subject to the rules that may have been considered previously exempt if the owner or operator used a lower temperature to determine applicability. The commission does not anticipate that a significant number of sources will be adversely affected by this proposed change. The commission is requesting comment on the proposed storage temperatures for determining the true vapor pressure of volatile organic liquids stored at or above ambient temperatures. The commission is also requesting comment about instances when volatile organic liquids are stored below ambient temperature.

The proposed rulemaking would require the owner or operator of a storage tank, transport vessel, or marine vessel subject to the requirements in this division to notify the appropriate regional office of

upcoming degassing or cleaning operations upon request by authorized representatives of the executive director. The commission is proposing this requirement to facilitate enforcement of the rules.

SECTION BY SECTION DISCUSSION

In addition to proposed rules, the commission proposes grammatical, stylistic, and various other non-substantive changes to update the rules in accordance with current *Texas Register* style and format requirements, improve readability, establish consistency in the rules, and conform to the standards in the *Texas Legislative Council Drafting Manual*, September 2008. Such changes include appropriate and consistent use of acronyms, punctuation, section references, and certain terminology like *that*, *which*, *shall*, and *must*. References to the Dallas/Fort Worth area and the Houston/Galveston area have been updated to the Dallas-Fort Worth area and the Houston-Galveston-Brazoria area respectively to be consistent with current terminology for the region. These non-substantive changes are not intended to alter the existing rule requirements in any way and are not specifically discussed in this preamble. The commission is requesting comment on any instance where these proposed technical corrections would inadvertently change the existing rule requirements.

Section 115.540, Applicability and Definitions

The commission proposes new §115.540 that would add applicability and definitions to clarify the Chapter 115, Subchapter F, Division 3 rules. Proposed new §115.540 establishes consistency with other rules in Chapter 115 and improves the readability of the rules by first defining the units affected by and terms used in the subsequent requirements.

The commission proposes new subsection (a) to specify that the provisions in this division apply to degassing during or in preparation of cleaning of any storage tank, transport vessel, or marine vessel located in the Beaumont-Port Arthur, DFW (Collin, Dallas, Denton, and Tarrant Counties only), El Paso, and Houston-Galveston-Brazoria areas. Proposed new subsection (a) clarifies that this division applies to degassing or cleaning any storage tank, transport vessel, or marine vessel containing volatile organic liquids with a true vapor pressure greater than or equal to 0.5 pounds per square inch absolute (psia) under actual storage conditions unless specifically exempted in §115.547. Proposed new subsection (a) also clarifies that in this division, the operator of any storage tank, transport vessel, or marine vessel refers to the regulated entity performing or outsourcing the degassing or cleaning operation. Proposed new subsection (a) indicates that this division applies to any storage tank, transport vessel, or marine vessel in the Beaumont-Port Arthur and Houston-Galveston-Brazoria areas. Proposed new subsection (a) also indicates that this division applies to any storage tank or transport vessel in the DFW and El Paso areas.

Proposed new subsection (b) indicates that unless the context clearly indicates otherwise or unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382), in 30 TAC §§3.2, 101.1, or 115.10 the terms used in this division have the meanings commonly used in the field of air pollution control. Proposed new subsection (b) also indicates that in addition, the following meanings apply in this division unless the context clearly indicates otherwise. The commission is requesting comment on the definitions proposed in this subsection and any additional definitions that should be included.

Proposed new paragraph (1) defines *Cleaning* as the process of washing or rinsing a storage tank,

transport vessel, or marine vessel, or removing vapor, sludge, or rinsing liquid from a storage tank, transport vessel, or marine vessel. Proposed new paragraph (2) defines *Degassing* as the process of removing volatile organic vapor from a storage tank, transport vessel, or marine vessel. The commission is proposing to include these definitions to help clarify the rule applicability.

Proposed new paragraph (3) defines *Recirculation system* as a system that is vapor-tight and composed of piping, ductwork, connections, flow inducing devices, and a control device. Proposed new paragraph (3) states that the recirculation system conducts volatile organic vapor from a storage tank, transport vessel, or marine vessel to a control device and conducts the exhaust from the outlet of the control device back into the same storage tank, transport vessel, or marine vessel. Proposed new paragraph (3) also indicates that the recirculation system does not include the storage tank, transport vessel, or marine vessel that is being degassed or cleaned. The commission is proposing to include this definition to fully describe the type of system being proposed as a new option to control VOC vapors during degassing or cleaning operations.

Proposed new paragraph (4) defines *Storage capacity* as the volume of a storage tank as determined by multiplying the internal cross-sectional area of the tank by the average internal height of the tank shell or the volume of a transport vessel or marine vessel as determined by the manufacturer's original design capacity. The existing rule uses several different terms, including nominal storage capacity, to denote the tanks and vessels that are subject to these requirements. The commission is proposing to define this term and to use it consistently throughout this rulemaking. The proposed change is not intended to alter any existing rule requirements or to cause any additional sources to be subject to the existing rule

requirements.

Proposed new paragraph (5) defines *Storage tank* as a stationary vessel, reservoir, or container used to store VOC. This definition does not include: components that are not directly involved in the containment of liquids or vapors; subsurface caverns or porous rock reservoirs; or process tanks or vessels.

Proposed new paragraph (6) defines *Vapor-tight* as a condition that exists when no component of a system has a leak greater than 500 parts per million expressed as methane measured using Method 21 (40 CFR Part 60, Appendix A-7). The commission is proposing to include this definition to help clarify existing requirements that use this term. Although there are no additional monitoring requirements included in the proposed rule to demonstrate compliance with vapor-tight requirements, a notice of violation could be issued to the owner or operator of the tank or vessel if an authorized representative of the executive director, the EPA, or any local air pollution control agency with jurisdiction determined the vapor-tight condition was not maintained. The commission is requesting comment on alternative definitions for this term.

Section 115.541, Emission Specifications

The commission is proposing the repeal of existing §115.541 in order to reformat and clarify the emission specifications in this division. The proposed repeal is not intended to remove any of the existing emission specifications. The existing requirements in this section are either being incorporated into the proposed new §115.541 or the proposed new control requirements in §115.542. The commission is requesting

comment on any instances where the proposed repeal of §115.541 would inadvertently change the existing rule requirements.

The commission proposes new §115.541 to include the emission specifications for the degassing or cleaning of storage tanks, transport vessels, or marine vessels.

Proposed new subsection (a) requires all VOC vapors from a storage tank, transport vessel, or marine vessel subject to this division to be routed to a control device in accordance with the control requirements in §115.542 during degassing or cleaning operations. Proposed new subsection (a) incorporates the existing emission specifications in §115.541(a)(1)(A) and (2)(A), and (b)(2) and does not impose a new requirement on affected sources.

Proposed new subsection (b) prohibits the intentional bypassing of a control device used to comply with the requirements in this division. Proposed new subsection (b) also requires any visible VOC leak originating from the control device, or other associated product recovery device, to be repaired as soon as practical. Proposed new subsection (b) incorporates the existing emission specifications in §115.541(a)(1)(D) and (2)(D), and (b)(4) and does not impose a new requirement on affected sources.

Proposed new subsection (c) prohibits avoidable liquid or gaseous leaks, as detected by sight or sound, from the degassing or cleaning operations. Proposed new subsection (c) incorporates the existing emission specifications in §115.541(a)(1)(C) and (2)(C), and (b)(3) and does not impose a new requirement on affected sources. The commission is requesting comment on the appropriate inspection

requirements associated with this emission specification.

Proposed new subsection (d) requires a transport vessel to be kept vapor-tight at all times until the VOC vapors are routed to a control device. Proposed new subsection (d) incorporates the existing emission specifications in §115.541(a)(2)(E) and does not impose a new requirement on affected sources.

Proposed new subsection (e) requires a marine vessel to have all cargo tank closures properly secured or maintain a negative pressure within the vessel when a closure is opened and to have all pressure or vacuum relief valves operating within certified limits, as specified by classification society or flag state, until the VOC vapors are routed to a control device. Proposed new subsection (e) incorporates the existing emission specifications in §115.541(b)(5) and does not impose a new requirement on affected sources. If an authorized representative of the executive director, the EPA, or any local air pollution control agency with jurisdiction determined that cargo tank closures were not properly secured or that a negative pressure was not maintained, a notice of violation could be issued to the owner or operator of the vessel.

Proposed new subsection (f) requires all VOC vapors from a floating roof storage tank to be routed to a control device immediately but no later than 24 hours after the tank has been emptied to the extent practical or the drain pump loses suction. The commission is proposing to include this new language to clarify when the rules in this division begin to apply and to minimize standing idle losses from floating roof storage tanks. The commission is requesting comment on applying this requirement to all storage tanks and providing additional time for tanks storing low vapor pressure liquids or for drain-dry tanks.

Section 115.542, Control Requirements

The commission is proposing the repeal of existing §115.542 in order to reformat and clarify the emission specifications in this division. The proposed repeal is not intended to remove any of the existing emission specifications. The existing requirements in this section are being incorporated into the proposed new §115.542. The commission is requesting comment on any instances where the proposed repeal of §115.542 would inadvertently change the existing rule requirements.

The commission proposes new §115.542 to include the control requirements for the degassing or cleaning of storage tanks, transport vessels, or marine vessels.

Proposed new subsection (a) would require a control device used to comply with the emission specifications in §115.541 to meet one of the following conditions at all times when VOC vapors are routed to the device. The commission is including several equivalent options to limit VOC emissions from degassing operations that occur during or in preparation of cleaning an affected storage tank, transport vessel, or marine vessel. The commission is requesting comment on these proposed options and any other equivalent options that should be included in this rulemaking.

Proposed new paragraph (1) would include the same requirement in existing §115.541(a)(1)(B) and (2)(B), and (b)(2) for a control device to maintain a control efficiency of at least 90%. Proposed new paragraph (1) would also clarify the commission's intent that any control device used to comply with this division must be operated in a manner consistent with how the device was operated during the control

efficiency demonstration required in §115.544(c).

Proposed new paragraph (2) would require a flare that is used to comply with the requirements in this division to be designed and operated in accordance with 40 CFR §60.18(b) - (f), and to be lit at all times when VOC vapors are routed to the flare. As discussed elsewhere in this preamble, although 40 CFR §60.18 requires the pilot to be lit at all times and requires monitoring of the flare pilot flame, the commission is also specifically requiring the flare flame to be lit to clarify that the intent of the rule is for both the flare flame and the pilot to be lit at all times when VOC vapors are routed to the device. The commission is requesting comment on other options to ensure the flare is lit at all times when VOC vapors routed to the device.

Proposed new paragraph (3) would require the control device to be a recirculation system that does not cause the pressure inside the tank or vessel to increase by more than one inch water pressure at any time during the degassing or cleaning operation.

Proposed new paragraph (4) would require the VOC concentration at the outlet of the control device to be less than 500 ppmv at 0% oxygen, dry basis, expressed as methane.

Proposed new subsection (b) would require all VOC vapors to be routed to a control device until the VOC concentration before the inlet to the control device is less than 34,000 ppmv expressed as methane or less than 50% of the lower explosive limit (LEL) expressed as methane. After one of the conditions has been satisfied, the tank or vessel may be vented to the atmosphere without control for the remainder of the

degassing or cleaning operation, except as specified in §115.544(b)(4). As discussed elsewhere in this preamble, the commission is proposing to expand the requirement in §115.544(b)(4) to all applicable areas subject to the rules. The reference to §115.544(b)(4) is necessary to clarify that the additional monitoring required by that section would still apply. For sources in the Houston-Galveston-Brazoria area, proposed new subsection (b) would contain the same requirements as existing §115.542(a)(6) and (b)(5) except that the commission is proposing to clarify that the percent LEL must be expressed as methane. Compliance with the original requirement was required by January 1, 2009. However, the commission is now proposing to apply this same requirement to sources in all affected areas.

The commission is proposing to repeal the options in existing §115.542(a)(5) and (b)(4) for sources in the Beaumont-Port Arthur, DFW, or El Paso areas. The commission is proposing to repeal the existing option for the tank or vessel to be vented to the atmosphere without control for the remainder of the degassing or cleaning operation once the true vapor pressure inside the vessel has been reduced to less than 0.5 psia since this measurement is more appropriately referenced in terms of a VOC vapor concentration rather than a liquid characteristic. The commission is also proposing to repeal the existing option for the tank or vessel to be vented to the atmosphere without control once a turnover of at least four vapor space volumes, or four turnovers of the vapor space under a floating roof, has occurred. If the tank or vessel is drained dry and if the flow of displacement gases is measured properly, four turnovers would generally be sufficient to reduce VOC concentrations to less than 34,000 ppmv. However, if liquids remain in the bottom of the tank or vessel, as commonly occurs due to irregularities in the vessel surface, the remaining liquid would continue to be a source of VOC emissions after the four turnover criterion has been satisfied.

In addition, the commission is proposing to provide sources in the Beaumont-Port Arthur, DFW, or El Paso areas with the option for the tank or vessel to be vented to the atmosphere without control for the remainder of the degassing or cleaning operation once the VOC concentration before the inlet to the control device is less than 50% of the LEL expressed as methane. The proposed control requirements would allow the tank or vessel to be vented to the atmosphere without control once the VOC concentration reaches 34,000 ppmv expressed as methane or 50% of the LEL expressed as methane. The proposed new option for the tank or vessel to be vented to the atmosphere without control once the VOC concentration before the inlet to the control device is less than 50% of the LEL expressed as methane is more stringent than the existing option for the tank or vessel to be vented to the atmosphere without control once the VOC concentration reaches 34,000 ppmv expressed as methane because the LEL of methane is 5.0% by volume and 50% of the LEL of methane is 25,000 ppmv. Existing §115.542(b)(4) uses 20% of the LEL as one of the options for determining when marine vessels in the Beaumont-Port Arthur area may be vented to the atmosphere without control. Because the LEL criterion is an option to allow flexibility in measurement methods, and because the existing 34,000 ppmv concentration limit is the least stringent option, the proposed option to allow 50% of the LEL expressed as methane instead of 20% of LEL in proposed new subsection (b) will not allow an increase in VOC emissions over those allowed under existing §115.542(b)(4).

Proposed new subsection (c) would require degassing and cleaning equipment to be designed and operated to prevent avoidable liquid or gaseous VOC leaks. Proposed new subsection (c) would contain the same requirement in existing §115.542(a)(4) and (b)(3).

Proposed new subsection (d) would require that when degassing or cleaning is effected through the hatches or manways of a storage tank, all lines must be equipped with fittings that make vapor-tight connections and that are closed when disconnected or equipped to discharge residual VOC in the line into a closed recovery or disposal system after degassing or cleaning is complete. Proposed new subsection (d) would contain the same requirement in existing §115.542(a)(3) except that the commission is proposing to clarify the recovery or disposal system must be closed to minimize emissions.

Proposed new subsection (e) would require that when degassing or cleaning is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, a pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch. Proposed new subsection (e) would also require a means to be provided to minimize liquid drainage from the degassing or cleaning equipment when it is removed from the hatch or to accomplish drainage before such removal. Proposed new subsection (e) would contain the same requirement in existing §115.542(a)(2).

Proposed new subsection (f) would require that when degassing or cleaning is effected through the hatches of a marine vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch, or a negative pressure inside the cargo tank must be maintained. Proposed new subsection (f) would also require a means must be provided to minimize liquid drainage from the degassing or cleaning equipment when it is removed from the hatch or to accomplish drainage before such removal.

Proposed new subsection (f) would contain the same requirement in existing §115.542(b)(2).

Section 115.543, Alternate Control Requirements

The commission proposes non-substantive changes to §115.543 necessary to comply with current rule formatting standards.

Section 115.544, Inspection, Monitoring, and Testing Requirements

The commission proposes changing the title of §115.444 from *Inspection Requirements* to *Inspection, Monitoring, and Testing Requirements* to reflect the proposed changes to the content of this section.

The commission proposes subsection (a) to specify the inspection requirements that apply during the degassing or cleaning of any storage tank, transport vessel, or marine vessel subject to this division.

The commission proposes to amend paragraph (1) with non-substantive changes necessary to comply with current rule formatting standards. Amended paragraph (1) would require inspection for visible liquid leaks, visible fumes, or significant odors resulting from VOC transfer operations that are conducted during each degassing or cleaning operation.

The commission proposes to amend paragraph (2) with non-substantive changes necessary to comply with current rule formatting standards. Amended paragraph (2) would require degassing or cleaning through the affected transfer lines to be discontinued when a leak is observed that cannot be repaired within a reasonable length of time. The commission is proposing to remove the sentence in existing

paragraph (2) that indicates that the intentional bypassing of a vapor control device during cleaning or degassing is prohibited. The commission proposes to remove this superfluous sentence because the same requirement is already more appropriately included in the emission specifications in §115.542.

The commission proposes new subsection (b) to specify the monitoring requirements that apply during the degassing or cleaning of any storage tank, transport vessel, or marine vessel subject to this division. Proposed subsection (b) also indicates that monitoring at least once every 15 minutes is sufficient to demonstrate compliance with the continuous monitoring requirements in this subsection.

Proposed paragraph (1) would require any monitoring device used to comply with the requirements in this subsection to be installed, calibrated, maintained, and operated according to the manufacturer's instructions. The commission is proposing paragraph (1) to clarify the expectations associated with monitoring equipment used to comply with the requirements in this division.

Proposed paragraph (2) would require the owner or operator to monitor any operational parameters necessary to demonstrate the proper functioning of a control device used to comply with the requirements in this division at all times when VOC vapors are routed to the device. Proposed paragraph (2) contains the same monitoring requirements in existing §115.546(2) and also includes the applicable monitoring requirements associated with the proposed new control options.

Proposed subparagraph (A) would require the owner or operator to continuously monitor the exhaust gas VOC concentration of any carbon adsorption system that regenerates the carbon bed directly to determine

breakthrough. Alternatively, proposed subparagraph (A) would require the owner or operator to periodically monitor the exhaust gas VOC determine breakthrough and switch the exhaust gas flow to fresh carbon for any carbon adsorption system that does not regenerate the carbon bed directly, as specified by 40 CFR §61.354(d), except that any monitoring must be conducted at intervals no greater than 20% of the design carbon replacement interval. Proposed subparagraph (A) contains the requirements in existing §115.546(2)(C). In addition, proposed subparagraph (A) clarifies that the owner or operator must switch the exhaust gas flow to fresh carbon for any carbon adsorption system that does not regenerate the carbon bed directly and clarifies that any monitoring must be conducted at intervals no greater than 20% of the design carbon replacement interval. The commission is proposing these additional requirements to account for the high flow rate conditions encountered during degassing and cleaning operations. In addition, proposed subparagraph (A) specifies that for the purpose of this division, breakthrough is defined as a measured VOC concentration exceeding 100 ppmv expressed as methane above background. The proposed threshold is based on the requirements in the Refinery MSS Model Permit. The commission is requesting comment on the appropriate VOC concentration to determine if breakthrough has occurred.

Proposed subparagraph (B) would require the owner or operator to continuously monitor the inlet and outlet gas temperature of a catalytic incinerator. Proposed subparagraph (B) contains the same requirements in existing §115.546(2)(B).

Proposed subparagraph (C) would require the owner or operator to continuously monitor the outlet gas temperature of a condensation system to ensure that the temperature is below the manufacturer's

recommended operating temperature for controlling the VOC vapors routed to the device. The commission is proposing that this monitoring and associated recordkeeping requirement would also apply if the condensation system is part of a recirculation system and is requesting comment on the necessity of this including this requirement for a condensation system is part of a recirculation system.

Proposed subparagraph (D) would require the owner or operator to continuously monitor the exhaust gas temperature immediately downstream of a direct-flame incinerator. Proposed subparagraph (B) contains the same requirements in existing §115.546(2)(C).

Proposed subparagraph (E) would require the owner or operator to comply with one of the monitoring requirements in clauses (i) - (iii) if a flare is used to comply with the requirements in this division.

Proposed clause (i) would require the owner or operator to continuously monitor the net heating value of the VOC vapors routed to the flare. Proposed clause (ii) would require the owner or operator to continuously monitor the total volume of supplemental fuel added to the VOC vapors routed to the flare.

Proposed clause (iii) would require the owner or operator to use calculations to demonstrate that for the material stored in the tank or vessel the net heating value of the VOC vapors routed to the flare cannot drop below the minimum net heating value requirements in 40 CFR §60.18 until the concentration of VOC in the vapors being routed to the flare is less than the concentration limits in §115.542(b). The commission is requesting comment on other methods to validate that the VOC vapors routed to the flare meet the minimum net heating value requirements in 40 CFR §60.18 at all times when VOC vapors are being routed to the device.

Proposed subparagraph (F) would require the owner or operator to use one of the following methods to monitor the exhaust gas VOC concentration at least once per hour for an internal combustion engine or any control device used to comply with the option in §115.542(a)(4) to limit exhaust concentration.

Proposed subparagraph (F) would also specify that the hourly VOC concentration must be determined using the methods listed in proposed new clauses (i) and (ii). Proposed clause (i) would require the hourly VOC concentration to be determined by using the integrated bag sampling procedure in Method 18 (40 CFR Part 60, Appendix A), §8.2.1.1 - 8.2.1.4, and a total hydrocarbon analyzer that meets instrument and calibration specifications in Method 21. As an alternative to clause (i), proposed clause (ii) would require the hourly VOC concentration to be determined by continuously monitoring the exhaust gas VOC concentration using Method 25A (40 CFR Part 60, Appendix A). The commission is requesting comment on other appropriate test methods.

Proposed subparagraph (G) would require the owner or operator to continuously monitor the combustion chamber temperature of a thermal oxidizer. Proposed subparagraph (G) would also require the owner or operator to continuously monitor the gas flow rate into the thermal oxidizer to determine the combustion chamber residence time if necessary to demonstrate compliance with §115.544(c)(3).

Proposed subparagraph (H) would require the owner or operator to continuously monitor the pressure inside the tank or vessel or continuously monitor the gas flow rate at the inlet and outlet of the control device if a recirculation system is used to comply with this division. Proposed subparagraph (H) would also require the owner or operator to monitor for VOC leaks using the procedure in Method 21 and begin this monitoring within one hour after beginning any degassing or cleaning operation. For the purposes of

this requirement, the commission proposes that a leak be defined as a screening concentration greater than 500 ppmv above background as methane for all components. The commission is requesting comment on limiting this monitoring and associated recordkeeping requirement to a recirculation system being used to control vapors from the degassing or cleaning of a floating roof storage tank. The commission is also requesting comment on allowing the leak detection and repair alternative work practice.

Proposed paragraph (3) would require the owner or operator to monitor the VOC concentration before the inlet of the control device to demonstrate compliance with the VOC concentration or percent LEL limits in §115.542(b) and determine if the storage tank, transport vessel, or marine vessel can be vented to atmosphere without control for the remainder of the degassing or cleaning operation, except as specified in paragraph (4). Proposed paragraph (3) would require the VOC concentration to be monitored once per minute for at least five minutes, and all measurements must be less than the VOC concentration limits in §115.542(b). The commission is proposing to include this language to clarify the monitoring procedure that should be used to determine the VOC concentration prior to venting the tank or vessel to atmosphere without control for the remainder of the degassing or cleaning operation. The commission is proposing this procedure to increase consistency between this rule and the Refinery MSS Model Permit. The commission is requesting comment on other appropriate monitoring procedures that should be included in this rulemaking.

Proposed paragraph (4) would require the owner or operator of any storage tank, transport vessel, or marine vessel to comply with one of the conditions in this paragraph after demonstrating compliance with the applicable VOC concentration or percent LEL limits in §115.542(b) or (c) in accordance with

paragraph (3). The existing rule requires affected owners or operators to monitor a tank or vessel for 48 hours after reaching the applicable VOC concentration or percent LEL limits. As discussed elsewhere in this preamble, the commission is proposing to expand this option to all areas affected by this rulemaking as well as provide additional options. The commission is requesting comment on any other equivalent options that could be provided.

Proposed subparagraph (A) would allow the VOC concentration inside the tank or vessel to be monitored once every 12 hours while venting to atmosphere without control until five consecutive measurements collected at 12-hour intervals are measured to be less than 34,000 ppmv or less than 50% of the LEL.

The VOC concentration measurement required by paragraph (3) may be considered the first of these five consecutive measurements. Proposed clause (i) would specify that if uncontrolled venting to the atmosphere has been suspended for more than four hours, the VOC concentration inside the tank or vessel must be measured upon restart of the degassing and cleaning operation. Proposed clause (ii) would specify that if any of the VOC concentration measurements equal or exceed 34,000 ppmv as methane or 50% of the LEL, the tank or vessel must be routed to the control device until the VOC concentration before the inlet to the control device is below 34,000 ppmv as methane or less than 50% of the LEL.

Proposed subparagraph (A) would contain the existing requirements in §115.542(a)(6) and (b)(5) for the Houston-Galveston-Brazoria area and apply this same requirement to all affected areas.

Proposed subparagraph (B) would allow the storage tank, transport vessel, or marine vessel to be vented to atmosphere without control for the remainder of the degassing or cleaning operation with no further VOC measurements if the VOC concentration inside the tank or vessel is less than 1% of the LEL before

the owner or operator stops routing the VOC vapors to a control device in accordance with §115.541 and §115.542. The commission is proposing this option based on the premise that once the VOC concentration inside the tank or vessel is less than 1% of the LEL it would not be possible that the VOC concentration could rise above 34,000 ppmv as methane within the first 12 hours after disconnecting the control device. The commission is requesting comment on any instances where this alternative would be less stringent than the monitoring required in proposed subparagraph (A).

Proposed subparagraph (C) would allow the owner or operator to use the procedure in this subparagraph to demonstrate that the VOC concentration inside the tank or vessel will not increase above the applicable concentration limit in §115.542(b) or (c) before venting the tank or vessel to atmosphere for the remainder of the degassing or cleaning operation. Proposed clause (i) would require the owner or operator to stop routing the VOC vapors from the degassing and cleaning operations to the control device but not allow the VOC vapors inside the tank or vessel to vent to atmosphere. Proposed clause (ii) would require the VOC concentration inside the tank or vessel to be measured at least one hour but no more than two hours after the owner or operator stops routing VOC vapors to the control device. The commission is proposing this one-hour waiting period in order to allow the VOC concentration inside the tank to reach equilibrium prior to taking the required concentration measurement and proposing the upper limit to prevent unnecessary fugitive standing idle emissions. Proposed clause (iii) would allow the tank or vessel to be vented to atmosphere without control for the remainder of the degassing or cleaning operation if the VOC concentration measured inside the tank or vessel according to clause (ii) is below the applicable concentration limit in §115.542(b) or (c). Proposed clause (iii) would clarify that if VOC concentration measured inside the tank or vessel exceeds the applicable concentration limit in §115.542(b) or (c) the

VOC vapors from the tank or vessel must be routed to the control device until the VOC concentration before the inlet to the control device meets the applicable concentration limit in §115.542(b) or (c) and the owner or operator demonstrates compliance with the conditions of this subparagraph. The commission is proposing this equivalent option based on the premise that once the VOC concentration inside the tank or vessel has equilibrated and is still measured to be less than the VOC limits in §115.542(b), it is not possible that the VOC concentration will rise above 34,000 ppmv as methane after that point.

The commission proposes subsection (c) to specify the testing requirements that apply to the owner or operator of any storage tank, transport vessel, or marine vessel subject to this division if a control device is used to comply with the emission specifications in §115.541.

Proposed paragraph (1) would require an initial control efficiency demonstration to be conducted in accordance with the approved test methods in §115.545 for a control device used to comply with the requirements in §115.542(a)(1). Proposed paragraph (1) would also require the device must be retested within 60 days after any modification that could reasonably be expected to affect the efficiency of a control device. The commission is requesting comment on the number of days allowed to conduct the control efficiency demonstration after a major modification.

Proposed paragraph (2) would require a periodic control efficiency demonstration must be conducted at least once every 60 months in accordance with the approved test methods in §115.545 for a portable control device used to comply with the requirements in §115.542(a)(1). The commission is requesting

comment on the frequency of the period control efficiency demonstrations.

Proposed paragraph (3) would exempt a portable thermal oxidizer from the periodic control efficiency demonstration in paragraph (2) if the combustion chamber temperature is at least 1,400 degrees Fahrenheit and the flow rate of the VOC vapors routed to the device is limited to assure at least a 0.5 second residence time all times when the device is in use. The commission is requesting comment on the appropriate temperature and residence time for this option. The commission is also requesting comment on any other devices that should be afforded similar options to the periodic testing requirements.

Section 115.545, Approved Test Methods

The commission is proposing the repeal of existing §115.545 in order to reformat and clarify the approved test methods in this division. The existing requirements in this section are being incorporated into proposed new §115.545.

The commission proposes new §115.545 to indicate that compliance with the requirements in this division must be determined by applying one or more of the following test methods or procedures, as appropriate. Proposed new §115.545 amends the existing language in §115.545 to improve consistency with other rules in Chapter 115 and to more clearly indicate that the test methods listed in this section must be used to demonstrate compliance with all the requirements in this division not just the requirements in §115.541 and §115.542. The commission is requesting comment on any additional test methods that should be included for demonstrating compliance with this division.

Proposed new paragraph (1) would require the use of Methods 1 - 4 (40 CFR Part 60, Appendix A) for determining flow rates. Proposed new paragraph (1) contains the same requirement in existing paragraph (1) with non-substantive changes necessary to comply with current rule formatting standards.

The commission proposes new paragraph (2) to allow for the use Methods 3, 3A, or 3B (40 CFR Part 60, Appendix A) to determine exhaust gas oxygen concentration for making any oxygen corrections necessary for §115.541(a)(4).

The commission proposes new paragraph (3) to allow the use of Method 18 (40 CFR Part 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography. Proposed new paragraph (3) would incorporate the requirement in existing paragraph (2) with non-substantive changes necessary to comply with current rule formatting standards. Proposed new subparagraph (A) would require only one bag sample to be collected for each concentration measurement if Method 18 is used to demonstrate compliance with the VOC concentration monitoring requirements in §115.542(b) and §115.544(b)(4). Proposed new subparagraph (A) contains the same requirement in existing paragraph (11)(B) for use in Houston-Galveston-Brazoria area. The commission is proposing to allow the use of only one bag sample to be collected for each concentration measurement if Method 18 is used for demonstrating compliance with the VOC concentration monitoring requirements in all areas affected by the rule. Proposed new subparagraph (B) would require the hourly VOC concentration to be determined by using the integrated bag sampling procedure in Method 18, §8.2.1.1 - 8.2.1.4 if Method 18 is used to demonstrate compliance with the VOC concentration monitoring requirements in §115.544(b)(2)(F) for an internal combustion engine or any control device used to comply with the option in §115.542(a)(4) to

limit exhaust concentration.

The commission proposes new paragraph (4) to allow for the use Method 19 (40 CFR Part 60, Appendix A) for determining exhaust gas flow rates on combustion control devices in lieu of using Methods 1 - 4. The commission is requesting comment on any instances where the proposed use of this EPA-approved test method would be inappropriate.

Proposed new paragraph (5) would allow Method 21 (40 CFR Part 60, Appendix A-7) to be used for determining VOC leaks. This portion of proposed new paragraph (5) contains the same requirement in existing paragraph (6). Proposed new paragraph (5) would also allow an instrument meeting the specifications and calibration requirements in Method 21 to be used for demonstrating compliance with the VOC concentration monitoring requirements in §115.542(b) and §115.544(b)(4) with the provision that the instrument response factor criteria in §8.1 of Method 21 may be determined using the average composition of the liquid in the tank rather than for each individual liquid. This portion of proposed new paragraph (5) contains the same requirement in existing paragraph (11)(A) for use in Houston-Galveston-Brazoria area. The commission is proposing to allow the use of an instrument meeting the specifications and calibration requirements in Method 21 for demonstrating compliance with the VOC concentration monitoring requirements in all areas affected by the rule. The commission is requesting comment on any instances where the proposed use of this method would be inappropriate outside of the Houston-Galveston-Brazoria area.

Proposed new paragraph (6) would allow Method 25 (40 CFR Part 60, Appendix A) to be used for

determining total gaseous nonmethane organic emissions as carbon. Proposed new paragraph (6) contains the same requirement in existing paragraph (3).

Proposed new paragraph (7) would allow Methods 25A or 25B (40 CFR Part 60, Appendix A) to be used for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis. Proposed new paragraph (7) contains the same requirement in existing paragraph (4).

Proposed new paragraph (8) would allow Method 27 (40 CFR Part 60, Appendix A) to be used for determining tank-truck leaks. Proposed new paragraph (8) contains the same requirement in existing paragraph (8).

Proposed new paragraph (9) would allow for the use of a portable oxygen analyzer that is calibrated, maintained, and operated according to the manufacturer's instructions may be used to determine exhaust gas oxygen concentration for making any oxygen corrections necessary for §115.542(a)(4) in lieu of using Methods 3, 3A, or 3B.

Proposed new paragraph (10) would allow additional test procedures described in 40 CFR §60.503(b) - (d) (effective February 14, 1989) to be used for determining compliance for bulk gasoline terminals.

Proposed new paragraph (10) contains the same requirement in existing paragraph (5).

Proposed new paragraph (11) would require the true vapor pressure to be determined using American Society for Testing and Materials Test Method D323-89, D2879, D4953, D5190, or D5191 for the

measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with American Petroleum Institute Publication 2517, Third Edition, 1989. Proposed new paragraph (11) contains the same requirement in existing paragraph (7). Proposed new paragraph (11) would also include new language to clarify that for the purposes of temperature correction, the owner or operator shall use the higher of either 95 degrees Fahrenheit or the actual storage temperature. Proposed new paragraph (11) would allow the actual storage temperature of an unheated tank or vessel to be determined using the maximum local monthly average ambient temperature as reported by the National Weather Service. Proposed new paragraph (11) would also allow the actual storage temperature of a heated tank or vessel to be determined using either the measured temperature or the temperature set point of the tank or vessel. The commission is proposing the use of 95 degrees Fahrenheit to establish consistency with the Refinery MSS Model Permit. The commission is requesting comment on the proposed storage temperatures for determining the true vapor pressure of volatile organic liquids stored at or above ambient temperatures.

Proposed new paragraph (12) would allow the test procedures in 40 CFR §63.565(c) or 40 CFR §61.304(f) to be used for determination of marine vessel vapor tightness. Proposed new paragraph (12) contains the same requirement in existing paragraph (9).

Proposed new paragraph (13) would allow lower explosive limit detectors to be used for the concentration measurement required by §115.542(b) and §115.544(b)(4), if the detector is calibrated and maintained according to manufacturer's specifications. Proposed new paragraph (13) contains the same requirement in existing paragraph (11)(F) for use in Houston-Galveston-Brazoria area. The commission is proposing

to allow the use of lower explosive limit detectors for required concentration measurements in all areas affected by the rule.

Proposed new paragraph (14) would allow minor modifications to the test methods in this section to be used if approved by the executive director. Proposed new paragraph (14) contains the same requirement in existing paragraph (10).

Proposed new paragraph (15) would allow test methods other than those specified in this section to be used if validated by 40 CFR Part 63, Appendix A, Test Method 301 and approved by the executive director. Proposed new paragraph (15) establishes consistency in the rules by providing an affected owner or operator with the same flexibility afforded to the owner or operator of other units regulated in Chapter 115.

The commission is proposing to delete the option in paragraph (11)(C) to use bag samples to measure the VOC concentration in Houston-Galveston-Brazoria area, if the means of collecting the sample and the type of bag used are appropriate and representative of the type of space being sampled, and the analytical method used to evaluate bag contents are appropriate for the concentration levels and compound types. The commission is proposing to remove this option because it does not provide enough specificity to ensure the appropriate use of this sampling method. The commission is requesting comment on reasons why this option should be retained for use in all areas affected by the rule.

The commission is proposing to delete the option in paragraph (11)(E) to use portable hydrocarbon gas

analyzer using an appropriate detector that is effective in the concentration range being measured and calibrated with compounds of interest in each case if the analyzers are calibrated and maintained according to manufacturer's specifications. The commission is proposing to remove this option because it does not provide enough specificity to ensure the use of appropriate instruments. The commission contends that the use of an instrument meeting the specifications in Method 21 is more appropriate for demonstrating compliance with the VOC concentration monitoring requirements. The commission requests comments on any instances where the use of an instrument meeting the specifications in Method 21 would be inappropriate. The commission is requesting comment on reasons why this option should be retained for use in all areas affected by the rule.

Section 115.546, Recordkeeping and Notification Requirements

The commission proposes changing the title of §115.546 from *Monitoring and Recordkeeping Requirements* to *Recordkeeping and Notification Requirements* to reflect the proposed changes to the content of this section to relocate the monitoring requirements to §115.544 and to require notification of degassing and cleaning operations.

The commission proposes subsection (a) to specify the recordkeeping requirements for this division. Proposed subsection (a) incorporates the existing requirements in §115.546 for the owner or operator of any VOC storage tank, transport vessel, or marine vessel subject to the requirements in this division to maintain records on site for at least two years and make these records available upon request to authorized representatives of the executive director, the EPA, or any local air pollution control agency with jurisdiction. In addition, the commission is proposing to change the record retention time from two years

to five years for all records created on or after March 1, 2009. The commission is proposing to increase the record retention time from two years to five years because the commission anticipates that most of the facilities subject to this division are already required to keep records for five years to comply with their Title V permit requirements. The proposed new five-year record retention time would only apply to those records generated approximately two years before the effective date of the proposed rule. The commission is requesting comment on any negative impacts associated with changing the record retention time from two years to five years.

The commission proposes to re-letter the existing requirements in §115.546(1), (1)(A) - (C) as §115.546(a)(1), (a)(1)(A) - (C), respectively, with non-substantive changes necessary to comply with current rule formatting standards.

Proposed §115.546(a)(1)(D) would require the affected owner or operator to keep records of the VOC concentration or percent LEL measurements required in §115.544(b)(3) to determine when the storage tank, transport vessel, or marine vessel can be vented to the atmosphere without control. The commission is proposing subparagraph (D) to clarify the intent of the existing requirement in §115.546(4) to maintain results of any testing conducted in accordance with the provisions specified in §115.545 includes maintaining records to demonstrate compliance with the VOC concentration limits in §115.542.

The commission proposes §115.546(a)(1)(E) to require record of the VOC concentration or percent LEL measurements required in §115.544(b)(4). Proposed subparagraph (E) includes the requirements in existing §115.546(1)(D) for affected sources in the Houston-Galveston-Brazoria area and also reflects the

proposed revision to include this same monitoring requirement for all affected areas subject to this division.

The commission proposes §115.546(a)(2) to require the owner or operator to maintain records of any operational parameter monitoring required in §115.544(b)(2) for a control device used to comply with the requirements in this division.

Proposed subparagraph (A) would require the owner or operator to maintain records of the VOC concentration measurements required in §115.544(b)(2)(A) for a carbon adsorption system. Proposed subparagraph (A) would contain the existing requirements in §115.546(2)(C).

Proposed subparagraph (B) would require the owner or operator to maintain records of the continuous monitoring of the inlet and outlet gas temperature of a catalytic incinerator required in §115.544(b)(2)(B).

Proposed subparagraph (B) would contain the same requirements in existing §115.546(2)(B).

Proposed subparagraph (C) would require the owner or operator to maintain records of the continuous monitoring of the outlet gas temperature to ensure that the temperature is below the manufacturer's recommended operating temperature for controlling the VOC vapors that are routed to a condensation system as required in §115.544(b)(2)(C).

Proposed subparagraph (D) would require the owner or operator to maintain records of the continuous monitoring of the exhaust gas temperature immediately downstream of a direct-flame incinerator as

required in §115.544(b)(2)(D). Proposed subparagraph (D) would contain the same requirements in existing §115.546(2)(A).

Proposed subparagraph (E) would require the owner or operator to maintain records of the continuous monitoring of the net heating value of the VOC vapors routed to the flare, the supplemental fuel added to the VOC vapors routed to the flare, or the engineering calculations required in §115.544(b)(2)(E).

Proposed subparagraph (F) would require the owner or operator to maintain records of the hourly monitoring of the exhaust gas VOC concentration required in §115.544(b)(2)(F) for an internal combustion engine or any control device used to comply with the option in §115.542(a)(4) to limit exhaust concentration. Proposed subparagraph (F) would also require records of the monitoring method used to determine the VOC concentration.

Proposed subparagraph (G) would require the owner or operator to maintain records of the continuous monitoring of the combustion chamber temperature of a thermal oxidizer as required in §115.544(b)(2)(G). Proposed subparagraph (G) would also require the owner or operator to maintain records of the continuous monitoring of the gas flow rate into the thermal oxidizer to determine the residence time if necessary to demonstrate compliance with §115.544(c)(3).

Proposed subparagraph (H) would require the owner or operator to maintain records of the continuous monitoring of the pressure inside the tank or vessel or the continuous monitoring of the gas flow rate at the inlet and outlet as required in §115.544(b)(2)(H) if a recirculation system is used to comply with this

division. Proposed subparagraph (H) would also require the owner or operator to maintain records of the Method 21 monitoring for VOC leaks within one hour after beginning any degassing or cleaning operation, including the VOC measurements and the time the monitoring began.

The commission is proposing to amend §115.546(a)(3) with non-substantive changes necessary to comply with current rule formatting standards. The proposed amendment to paragraph (3) would also indicate the commission is proposing to re-letter the inspection requirements in §115.544 as §115.544(a).

The commission is proposing to amend §115.546(a)(4) with non-substantive changes necessary to comply with current rule formatting standards. The proposed amendment to paragraph (4) would also require the records to contain all applicable requirements from the commission's Sampling Procedures Manual, Chapter 14.0, Contents of Sampling Reports (January 2003, revision one). The commission is proposing this recordkeeping requirement to clarify what information the commission expects to be included in the records of any testing conducted in accordance with the approved test methods in §115.545.

The commission is proposing §115.546(a)(5) to require the owner or operator to maintain records of the manufacturer's instructions for installation, calibration, maintenance, and operation for any monitoring device used to comply with the requirements in this division.

The commission proposes §115.546(b) requiring that upon request by authorized representatives of the executive director, the owner or operator of a storage tank, transport vessel, or marine vessel in the Houston-Galveston-Brazoria area to notify the appropriate regional office of upcoming degassing or

cleaning operations. The proposed notification requirements would facilitate the enforcement of the rule by allowing investigators to observe degassing or cleaning operations. The commission is requesting comment on the necessity of the proposed requirement for all affected sources in all affected areas.

Section 115.547, Exemptions

The commission proposes non-substantive changes to §115.547 necessary to comply with current rule formatting standards.

The commission is proposing to delete existing language in paragraph (1) to clarify the rule applicability, the commission is proposing that this division apply to any storage tank, transport vessel, or marine vessel storing volatile organic liquids with a true vapor pressure greater than or equal to 0.5 psia under actual storage conditions. The commission is proposing to remove the exemption in existing paragraph (1) because it is no longer necessary to exempt any storage tank, transport vessel, or marine vessel storing volatile organic liquids with a vapor space partial pressure less than 0.5 psia under actual storage conditions.

The commission is proposing paragraph (1) to contain the portions of existing paragraph (2) that relate to storage tanks. Proposed paragraph (1) specifies that any storage tank with a storage capacity of less than one million gallons is exempt from this division. Proposed paragraph (1) also indicates that after January 1, 2009, in the Houston-Galveston-Brazoria area, the storage tanks listed in subparagraphs (A) and (B) are no longer exempt from the requirements of this division. Proposed subparagraph (A) clarifies that storage tanks in the Houston-Galveston-Brazoria area with a storage capacity greater than or equal to

250,000 gallons but less than one million gallons are no longer exempt from this division after January 1, 2009. Proposed subparagraph (B) clarifies that storage tanks in the Houston-Galveston-Brazoria area with a storage capacity greater than or equal to 75,000 gallons but less than 250,000 gallons storing materials with true vapor pressure greater than 2.6 psia are no longer exempt from this division after January 1, 2009.

The commission proposes paragraph (2) exempting any transport vessel in the Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and Houston-Galveston-Brazoria areas with a storage capacity of less than 8,000 gallons from the requirements in this division. Proposed paragraph (2) contains the portions of existing paragraph (2) that relate to transport vessels.

The commission proposes paragraph (3) exempting any marine vessel in the Beaumont-Port Arthur and Houston-Galveston-Brazoria areas with a storage capacity of less than 420,000 gallons from the requirements in this division. Proposed paragraph (3) contains the portions of existing paragraph (2) that relate to marine vessels. The commission is proposing to delete the reference to 10,000 barrels in the existing rule to be consistent with the format of the other exemptions in this section that do not include references to the equivalent value in barrels.

The commission proposes to re-number the requirement in existing paragraph (3) as proposed paragraph (4) with only non-substantive changes necessary to comply with current rule formatting standards.

The commission proposes to re-number the requirement in existing paragraph (4) as proposed paragraph

(5) with non-substantive changes necessary to comply with current rule formatting standards. The commission also proposes amending existing paragraph (4) to indicate that requirements in existing §115.541(b) and §115.542(b) are proposed to be re-lettered as §115.541 and §115.542. In addition, proposed paragraph (5) would limit this exemption to only apply for 30 calendar days after the damage to the cargo tank is sustained. The commission is proposing this new limit to minimize emissions from damaged marine vessels.

The commission proposes to re-number the requirement in existing paragraph (5) as proposed paragraph (6) with only non-substantive changes necessary to comply with current rule formatting standards.

Section 115.549, Compliance Schedules

The commission proposes changing the title of §115.449 from *Counties and Compliance Schedules* to *Compliance Schedules* to establish consistency with other Chapter 115 rules.

The commission proposes subsection (a) stating that affected owners or operators in Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties were required to be in compliance with this division by November 15, 1996, and shall continue to comply with this division. The existing subsection (a) states that all affected persons shall continue to comply with this division as required by §115.930. Section 115.930 indicates that for all counties affected by this chapter, the final compliance dates for revisions to control requirements are given within the section relating to counties and compliance schedules in each division if the final compliance date of any provision is after the date of adoption of the current revision to this chapter; if the compliance dates are

not specified for any provision, the compliance date is past and all affected persons must be and remain in compliance with the provision as of the original compliance date. Proposed subsection (a) establishes consistency with other rules in Chapter 115 and improves the readability of the rule by clearly indicating the compliance schedule in the same portion of Chapter 115. The commission is requesting comment on any instance where this proposed formatting change would inadvertently change the existing rule requirements.

The commission proposes to revise subsection (b) to indicate that all affected owners or operators in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this division as soon as practicable, but no later than May 21, 2011. The proposed change reflects the rule compliance date for these counties that was recently published in the May 21, 2010, issue of the *Texas Register* (35 TexReg 4268) based on the commission's determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline.

The commission proposes non-substantive changes to subsection (c) necessary to comply with current rule formatting standards.

The commission proposes non-substantive changes to subsection (d) necessary to comply with current rule formatting standards. The commission also proposes amending subsection (d) to indicate that requirements in existing §115.542(a)(6) and (b)(5), and §115.546(1)(D) are proposed to be re-lettered as §§115.542(a)(2)(B), (3)(B), and (4)(A), and 115.546(a)(1)(E), respectively.

FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

Nina Chamness, Analyst, Strategic Planning and Assessment, has 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 proposed rules. The agency will use currently available resources to implement the provisions of the proposed rules. The proposed rules will not have fiscal implications for other state agencies or local governments. The proposed rules affect degassing and cleaning of storage tanks, transport vessels, and marine vessels, and state agencies and local governments do not typically own or operate these tanks or vessels.

Chapter 115, Subchapter F, Division 3, regulates the degassing or cleaning of storage tanks, transport vessels, and marine vessels in the Houston-Galveston-Brazoria and Beaumont-Port Arthur ozone nonattainment areas. Although not currently effective, the Chapter 115 degassing rules also apply in El Paso County as contingency measures that could become effective if the commission determines the rules are necessary to comply with federal air quality standards. In addition, on May 21, 2010, the commission published notice in the *Texas Register* (35 TexReg 4268) requiring affected sources in Collin, Dallas, Denton, and Tarrant Counties to comply with the Chapter 115 degassing and cleaning rules no later than May 21, 2011. Owners or operators of storage tanks, transport vessels, marine vessels, and facilities cleaning transport and marine vessels are required to control VOC emissions from degassing and cleaning operations and to comply with associated monitoring, testing, and recordkeeping requirements. Examples of affected industries include petroleum refineries, chemical plants, gasoline storage terminals, and bulk terminals storing VOC.

Implementation of the current rules regarding degassing and cleaning of storage tanks, transport vessels, and marine vessels have led to numerous compliance issues and requests for rule clarification. The proposed rules revise existing Chapter 115, Subchapter F, Division 3, to clarify requirements and facilitate the implementation and enforcement of rules for degassing and cleaning. The proposed rules provide additional options to control VOC emissions and add necessary monitoring, testing, and recordkeeping requirements for those controls; allow for the use of additional test methods to demonstrate compliance with the rules; clarify the control efficiency demonstration and monitoring requirements; allow the executive director to request notification of upcoming degassing and cleaning activities; and improve consistency with the new Refinery MSS Model Permit.

Agency records do not show that any local governments or state agencies own or operate the types and size of vessels that will be affected by the proposed rules.

PUBLIC BENEFITS AND COSTS

Nina Chamness 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 the continued protection of public health and the environment by providing clarity and flexibility regarding the regulation of VOC emissions from degassing and cleaning operations.

The proposed rules do not have any fiscal implications for individuals since the size and types of vessels affected are typically owned by large businesses.

Large businesses that own or operate affected tanks or vessels are not expected to experience significant fiscal implications as a result of the proposed rules. The proposed rules provide more detail regarding the existing rule requirements and specify additional options for compliance in order to facilitate implementation and enforcement of rules pertaining to VOC emissions during degassing or cleaning. Each owner or operator of these facilities is expected to choose the most economical option when complying with VOC emission limits for degassing and cleaning operations. This fiscal note provides additional information for control and monitoring options that have not been previously specified.

Clarification of Control Options

The proposed rules specifically allow for the option of flares and recirculation systems to control VOC emissions. The proposed rules specify that flares must continuously monitor operating parameters to ensure compliance with federal regulations. The proposed rules require installation of a continuous control meter (\$2,000 to \$3,000 per meter) to monitor the amount of supplemental fuel used or a calorimeter (\$24,000 to \$40,000) to determine net heating value of the emissions stream being vented to the flare. The proposed rules also specify that recirculation systems must continuously monitor operating parameters. The proposed rules require a continuous flow meter (\$2,000 to \$3,000 per meter) at the inlet and outlet of the control device or a one time purchase of a low pressure gauge (approximately \$350) with possible installation costs (\$1,000) to monitor recirculation systems. The proposed rules require VOC leak monitoring during degassing or cleaning operations and the hydrocarbon analyzer could cost up to \$10,000. Since the proposed rules provide a business with the option to use flares or recirculation systems as opposed to other control options in the existing rules, the additional costs for monitoring equipment are not expected to have a significant fiscal impact.

The proposed rules also specify that an owner or operator can use an internal combustion engine to comply with the degassing and cleaning requirements if the VOC concentration at the outlet of the control device where an emission stream is vented is monitored. Since this monitoring option can be done using equipment already required by the existing rules, compliance costs are expected to be minimal. However, if an affected owner or operator chooses to use another device to monitor the VOC concentration at the outlet of the control device, a second meter could cost up to \$10,000.

Clarification of Monitoring and Testing Requirements

The proposed rules specifically require an initial control efficiency demonstration for portable control devices. The need for this initial demonstration was implied by the current rules, and there should be no fiscal implications due to the clarification that the demonstration is required. However, the proposed rules do specify the need for a periodic control efficiency demonstration (done every five years), or as an alternative, owners or operators can monitor the concentration of VOC at the outlet of the control device where an emission stream is vented. Since this concentration monitoring option can be done using equipment already required by the existing rules, compliance costs are expected to be minimal. However, if an affected owner or operator chooses to use another device to monitor the VOC concentration at the outlet of the control device, a second meter could cost up to \$10,000. Affected owners and operators are expected to choose the most cost-effective option in monitoring, and the fiscal impacts of the monitoring clarifications included in the proposed rules are not expected to be significant.

The proposed rules also require the true vapor pressure to be determined by using the higher of either 95

degrees Fahrenheit or the actual storage temperature. While this change is not expected to substantively affect the applicability of the rules for sources in the areas already subject to the rules, it is possible calculating the true vapor pressure using 95 degrees Fahrenheit could result an owner or operator being required to control VOC emissions from degassing or cleaning operations that were previously exempt from the existing rules. If a previously exempt degassing or cleaning operation would be required to comply with the proposed rules, each controlled degassing or cleaning event could cost up to \$15,000 depending on the size of the tank or vessel.

The current rule for the Houston-Galveston-Brazoria area requires the owner or operator to monitor the VOC concentration once every 12 hours for five readings after the tank or vessel is disconnected from the control device. The proposed rules would also require this additional monitoring for affected tanks or vessels in all areas subject to this division. If the monitoring is performed by a third party, the additional monitoring will cost approximately \$800.

The proposed rules provide additional options for complying with the required monitoring for affected tanks or vessels in all areas. The proposed rules provide an option to stop VOC concentration measurements once the VOC concentration inside the tank or vessel is less than 1% of the LEL. The proposed rules also provide an option to measure the VOC concentration inside the tank or vessel at least one hour but no more than two hours after the owner or operator stops routing VOC vapors to the control device. Since this concentration monitoring option can be done using equipment already required by the existing rules, compliance costs are expected to be minimal. If the monitoring is performed by a third party, the additional monitoring will cost approximately \$250 per hour.

The proposed rules also require an affected owner or operator to notify the appropriate regional office of upcoming degassing and cleaning activities upon request by the executive director. Notice can be given using electronic means so the proposed notice requirements are not expected to have a fiscal impact on regulated parties.

SMALL BUSINESS AND MICRO-BUSINESS ASSESSMENT

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules. Small businesses do not typically own or operate the size of storage tanks, transport vessels, or marine vessels that are affected by the proposed rules. If a small business performs degassing and cleaning operations, then it is expected to incur the same costs as a large business when complying with the proposed rules.

SMALL BUSINESS REGULATORY FLEXIBILITY ANALYSIS

The commission has reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rules are not expected to adversely impact a small or micro-business in a material way for the first five years that the proposed rules are in effect.

LOCAL EMPLOYMENT IMPACT STATEMENT

The commission has 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.

DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking in light of the regulatory impact analysis requirements of Texas Government Code, §2001.0225, and determined that the proposed rulemaking 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. Although the proposed amendments to Chapter 115 are intended to protect air quality in ozone nonattainment areas, they are not expected to have any material adverse affects on 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. Instead the proposed rules are intended to clarify the requirements for degassing of stationary storage tanks, transport vessels, or marine vessels during the process of cleaning. The proposed rules address concerns identified by affected industries and other stakeholders about potentially confusing rule requirements and will facilitate compliance and enforcement of the degassing requirements. Additionally, the proposed rulemaking also does not meet any of the four applicability criteria for requiring a regulatory impact analysis for a major environmental rule, which are listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, applies only to a major environmental rule, 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.

The degassing requirements are designed to control sources of VOC, a precursor of ozone. The proposed rules will apply in the ozone nonattainment areas of Houston-Galveston-Brazoria and Beaumont-Port Arthur. The current degassing requirements are a contingency measure for the DFW one-hour ozone nonattainment area. The contingency measure was triggered by the commission on May 21, 2010, requiring Dallas, Denton, Collin, and Tarrant Counties to become compliant with the current rules as expeditiously as practical, but no later than one year after the date that the contingency measures were triggered. The one-year period to allow facilities to come into compliance in the rules provides a period of time for facilities to make necessary preparations to meet the monitoring and control requirements of the current rules. The proposed rulemaking is not intended to impose more stringent requirements than the existing rules. Therefore, the proposed rulemaking, if adopted by the commission, will be effective in Dallas, Denton, Collin, and Tarrant Counties as expeditiously as practical after the effective date of the rule, but no later than May 21, 2011. The rules may also potentially become effective in El Paso should they be triggered as contingency measures in the future. The intent of the proposed rulemaking is to clarify the rule requirements, including requirements for testing and sampling, to provide for the use of alternative control equipment, to improve consistency with the new Refinery MSS Model Permit, and implement requirements for the notification of degassing activities.

The proposed rulemaking implements requirements of 42 United States Code (USC), §7410, which requires states to adopt a SIP that provides for the implementation, maintenance, and enforcement of the

NAAQS in each air quality control region of the state. While 42 USC, §7410 generally does not require specific programs, methods, or reductions in order to meet the standard, the SIP must include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter (42 USC, Chapter 85, Air Pollution Prevention and Control). The provisions of the Federal Clean Air Act (FCAA) recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though the FCAA allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of 42 USC, §7410. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that their contributions to nonattainment areas are reduced so that these areas can be brought into attainment on schedule. The intent of the proposed rulemaking is to clarify the rule requirements, including requirements for testing and sampling, to provide for the use of alternative control equipment, to improve consistency with the new Refinery MSS Model Permit, and implement requirements for the notification of degassing activities. The proposed rulemaking will facilitate compliance and enforcement of the degassing requirements in ozone nonattainment areas. These requirements are control measures for VOC, a precursor of ozone, and are essential for attainment and maintenance of the ozone NAAQS.

The requirement to provide a fiscal analysis of proposed regulations in the Texas Government Code was amended by Senate Bill (SB) 633 during the 75th Legislature, 1997. The intent of SB 633 was to require

agencies to conduct a regulatory impact analysis of extraordinary rules. These are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 concluding that "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted proposed rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law.

As previously discussed in this preamble, the FCAA does not always require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each area contributing to nonattainment to help ensure that those areas will meet the attainment deadlines. Because of the ongoing need to address nonattainment issues and to meet the requirements of 42 USC, §7410, the commission routinely proposes and adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule proposed for inclusion in the SIP was considered to be a major environmental rule that exceeds federal law, then every SIP rule would require the full regulatory impact analysis contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Since the legislature is presumed to understand the fiscal impacts of the bills it passes and that presumption is based on information provided by state agencies and the LBB, the commission believes that the intent of SB

633 was only to require the full regulatory impact analysis for rules that are extraordinary in nature.

While the SIP rules will have a broad impact, the impact is no greater than is necessary or appropriate to meet the requirements of the FCAA. For these reasons, rules adopted for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a), because they are required by federal law.

The commission has consistently applied this construction to its rules since this statute was enacted in 1997. Since that time, the legislature has revised the Texas Government Code but left this provision substantially unamended. It is presumed that "when an agency interpretation is in effect at the time the legislature amends the laws without making substantial change in the statute, the legislature is deemed to have accepted the agency's interpretation." *Central Power & Light Co. v. Sharp*, 919 S.W.2d 485, 489 (Tex. App. Austin 1995), writ denied with per curiam opinion respecting another issue, 960 S.W.2d 617 (Tex. 1997); *Bullock v. Marathon Oil Co.*, 798 S.W.2d 353, 357 (Tex. App. Austin 1990, no writ). Cf. *Humble Oil & Refining Co. v. Calvert*, 414 S.W.2d 172 (Tex. 1967); *Dudney v. State Farm Mut. Auto Ins. Co.*, 9 S.W.3d 884, 893 (Tex. App. Austin 2000); *Southwestern Life Ins. Co. v. Montemayor*, 24 S.W.3d 581 (Tex. App. Austin 2000, pet. denied); and *Coastal Indust. Water Auth. v. Trinity Portland Cement Div.*, 563 S.W.2d 916 (Tex. 1978).

The commission's interpretation of the regulatory impact analysis requirements is also supported by a change made to the Texas Administrative Procedure Act (APA) by the legislature in 1999. In an attempt to limit the number of rule challenges based upon APA requirements, the legislature clarified that state agencies are required to meet these sections of the APA against the standard of "substantial compliance." The legislature specifically identified Texas Government Code, §2001.0225, as falling under this

standard. The commission has substantially complied with the requirements of Texas Government Code, §2001.0225.

As defined in the Texas Government Code, §2001.0225 only applies to a major environmental rule, the result of which is to: exceed a standard set by federal law, unless the rule is specifically required by state law; exceed an express requirement of state law, unless the rule is specifically required by federal law; 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 adopt a rule solely under the general powers of the agency instead of under a specific state law. This rulemaking action does not meet any of these four applicability requirements of a "major environmental rule." The proposed rules will clarify the requirements for degassing of stationary storage tanks, transport vessels, or marine vessels during the process of cleaning, with the specific intent of facilitating compliance and enforcement of the degassing requirements in ozone nonattainment areas. These requirements are control measures for VOC, a precursor of ozone, and are essential for attainment and maintenance of the ozone NAAQS. This rulemaking action does not exceed an express requirement of state law or a requirement of a delegation agreement, and was not developed solely under the general powers of the agency, but was specifically developed to meet the NAAQS established under federal law and authorized under Texas Health and Safety Code, §§382.011, 382.012, and 382.017, as well as under 42 USC, §7410(a)(2)(A). The commission invites public comment regarding the draft regulatory impact analysis determination during the public comment period.

TAKINGS IMPACT ASSESSMENT

The commission evaluated the proposed rulemaking and performed an assessment of whether Texas Government Code, Chapter 2007, is applicable. The degassing requirements are designed to control sources of VOC, a precursor of ozone, to ensure attainment and maintenance of the ozone NAAQS. The proposed rules will apply in the ozone nonattainment areas of Houston-Galveston-Brazoria and Beaumont-Port Arthur. The current degassing requirements are a contingency measure for the DFW one-hour ozone nonattainment area. The contingency measures were triggered by the commission on May 21, 2010, requiring Dallas, Denton, Collin, and Tarrant Counties to become compliant with the current rules as expeditiously as practical, but no later than one year after the date that the contingency measures were triggered. The one-year period to allow facilities to come into compliance in the rules provides a period of time for facilities to make necessary preparations to meet the monitoring and control requirements of the current rules. The proposed rulemaking is not intended to impose more stringent requirements than the existing rules. Therefore, the proposed rulemaking, if adopted by the commission, will be effective in Dallas, Denton, Collin, and Tarrant Counties as expeditiously as practical, but no later than May 21, 2011. The rules may also potentially become effective in El Paso, should they be triggered as contingency measures in the future. The intent of the proposed rulemaking is to clarify the rule requirements, including requirements for testing and sampling, to provide for the use of alternative control equipment, to improve consistency with the new Refinery MSS Model Permit, and implement requirements for the notification of degassing activities. The proposed rulemaking clarifies requirements that help to ensure the attainment and maintenance of the ozone NAAQS. Therefore, Texas Government Code, §2007.003(b)(4), provides that Texas Government Code, Chapter 2007 does not apply to this proposed rulemaking because it is an action reasonably taken to fulfill an obligation mandated by federal law.

In addition, the commission's assessment indicates that Texas Government Code, Chapter 2007 does not apply to these proposed rules because this is an action that is taken in response to a real and substantial threat to public health and safety; that is designed to significantly advance the health and safety purpose; and that does not impose a greater burden than is necessary to achieve the health and safety purpose.

Thus, this action is exempt under Texas Government Code, §2007.003(b)(13). The specific intent of the proposed rulemaking is to facilitate compliance and enforcement of the degassing requirements in the ozone nonattainment areas. These requirements are control measures for VOC, a precursor of ozone, and are essential for attainment and maintenance of the ozone NAAQS.

Consequently, the proposed rulemaking meets the exemption criteria in Texas Government Code, §2007.003(b)(4) and (13). For these reasons, Texas Government Code, Chapter 2007 does not apply to this proposed rulemaking.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the proposed rulemaking and found that the proposal is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §§33.201 *et seq.*, and therefore must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the proposed rules in accordance with Coastal Coordination Act Implementation Rules, 31 TAC §505.22 and found the proposed rulemaking is consistent with the applicable CMP goals and policies.

The CMP goal applicable to the proposed rulemaking is the goal to protect, preserve, and enhance the

diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(1)).

The CMP policy applicable to the proposed rulemaking is the policy that commission rules comply with federal regulations in 40 CFR, to protect and enhance air quality in the coastal areas (31 TAC §501.32).

The proposed rulemaking would not increase emissions of air pollutants and is therefore consistent with the CMP goal in 31 TAC §501.12(1) and the CMP policy in 31 TAC §501.32.

Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the proposed rules are consistent with these CMP goals and policies and because these rules do not create or have a direct or significant adverse effect on any coastal natural resource areas. Therefore, in accordance with 31 TAC §505.22(e), the commission affirms that this rulemaking action is consistent with CMP goals and policies.

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.

EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMITS PROGRAM

Chapter 115 is an applicable requirement under 30 TAC Chapter 122, Federal Operating Permits Program. If the amendments to Chapter 115 are adopted, owners or operators subject to the federal operating permit program must, consistent with the revision process in Chapter 122, upon the effective date of the rulemaking, revise their operating permit to include the new Chapter 115 requirements.

ANNOUNCEMENT OF HEARINGS

The commission will hold public hearings on this proposal in Austin on September 7, 2010, at 10:00 a.m. at the Texas Commission on Environmental Quality, Building E, Room 201S, 12100 Park 35 Circle, Austin, TX 78753; in Houston on September 8, 2010, at 2:00 p.m. at the Houston-Galveston Area Council, Conference Room A, 3555 Timmons Lane, Houston, TX 77027; and in Fort Worth on September 9, 2010, at 2:00 p.m. at the Texas Commission on Environmental Quality, Region 4 Office, DFW Public Meeting Room, 2309 Gravel Road, Fort Worth, TX 76118. The hearings are 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 hearings; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearings.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Charlotte Horn, Office of Legal Services at (512) 239-0779. Requests should be made as far in advance as possible.

SUBMITTAL OF COMMENTS

Written comments may be submitted to Devon Ryan, 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://www5.tceq.state.tx.us/rules/ecomments/>. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2009-036-115-EN. The comment period closes September 13, 2010. Copies of the proposed rulemaking can be obtained from the commission's Web site at

http://www.tceq.state.tx.us/nav/rules/propose_adopt.html. For further information, please contact Eddy

Lin, Air Quality Planning Section, at (512) 239-3932.

SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES

DIVISION 3: DEGASSING OR CLEANING OF STORAGE TANKS, TRANSPORT VESSELS,

AND MARINE VESSELS [STATIONARY, MARINE, AND TRANSPORT VESSELS]

§§115.540 - 115.542, 115.543, 115.544, 115.545, 115.546, 115.547, 115.549

STATUTORY AUTHORITY

The new and amended 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 TWC; TWC, §5.103, concerning Rules, that authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; 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 new and amended 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. The new and amended 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 new and amended sections are also proposed under Federal Clean Air Act (FCAA), 42 United States Code (USC), §§7401, *et seq.*, which requires states to submit state implementation plan revisions that specify the manner in which the national ambient air quality standard will be achieved and maintained within each air quality control region of the state.

The new and amended sections implement THSC, §§382.002, 382.011, 382.012, 382.016, and 382.017, and FCAA, 42 USC, §§7401 *et seq.*

§115.540. Applicability and Definitions.

(a) Applicability. Except as specified in §115.547 of this title (relating to Exemptions), this division applies to degassing during, or in preparation of, cleaning any storage tank, transport vessel, or marine vessel containing volatile organic liquids with a true vapor pressure greater than or equal to 0.5 pounds per square inch absolute under actual storage conditions. In this division, the operator of any storage tank, transport vessel, or marine vessel refers to the regulated entity performing or outsourcing the degassing or cleaning operation.

(1) In the Beaumont-Port Arthur area, as defined in §115.10 of this title (relating to Definitions), this division applies to any storage tank, transport vessel, or marine vessel.

(2) In the Dallas-Fort Worth area, as defined in §115.10 of this title, this division applies to any storage tank or transport vessel in Collin, Dallas, Denton, and Tarrant Counties. This division does not apply to any tank or vessel in Ellis, Johnson, Kaufman, Parker, or Rockwall Counties.

(3) In the El Paso area, as defined in §115.10 of this title, this division applies to any storage tank or transport vessel.

(4) In the Houston-Galveston-Brazoria area, as defined in §115.10 of this title, this division applies to any storage tank, transport vessel, or marine vessel.

(b) Definitions. Unless specifically defined in the Texas Clean Air Act (Texas Health and Safety Code, Chapter 382) or in §3.2, §101.1, or §115.10 of this title (relating to Definitions), the terms in this division have the meanings commonly used in the field of air pollution control. In addition, the following meanings apply in this division unless the context clearly indicates otherwise.

(1) **Cleaning**--The process of washing or rinsing a storage tank, transport vessel, or marine vessel, or removing vapor, sludge, or rinsing liquid from a storage tank, transport vessel, or marine vessel.

(2) **Degassing**--The process of removing volatile organic vapor from a storage tank, transport vessel, or marine vessel.

(3) **Recirculation system**--A vapor-tight system that is composed of piping, ductwork, connections, flow inducing devices, and a control device. The recirculation system conducts volatile organic vapor from a storage tank, transport vessel, or marine vessel to a control device and conducts the exhaust from the outlet of the control device back into the same tank or vessel. The recirculation system does not include the storage tank, transport vessel, or marine vessel that is being degassed or cleaned.

(4) **Storage capacity**--The volume of a storage tank as determined by multiplying the internal cross-sectional area of the tank by the average internal height of the tank shell or the volume of a transport vessel or marine vessel as determined by the manufacturer's original design capacity.

(5) **Storage tank**--A stationary vessel, reservoir, or container used to store volatile organic compounds. This definition does not include: components that are not directly involved in the containment of liquids or vapors; subsurface caverns or porous rock reservoirs; or process tanks or vessels.

(6) **Vapor-tight**--A condition that exists when no component of a system has a leak greater than 500 parts per million expressed as methane measured using Method 21 (40 Code of Federal Regulations Part 60, Appendix A-7).

§115.541. Emission Specifications.

(a) All volatile organic compounds (VOC) vapors from a storage tank, transport vessel, or marine vessel subject to this division must be routed to a control device in accordance with the requirements in §115.542 of this title (relating to Control Requirements) during degassing or cleaning operations.

(b) The intentional bypassing of a control device used to comply with this division is prohibited. Any visible VOC leak originating from the control device, or other associated product recovery device, must be repaired as soon as practical.

(c) No avoidable liquid or gaseous leaks, as detected by sight or sound, may originate from the degassing or cleaning operations.

(d) In addition to the requirements in subsections (a) - (c) of this section, a transport vessel must be kept vapor-tight at all times until the VOC vapors are routed to a control device.

(e) In addition to the requirements in subsections (a) - (c) of this section, a marine vessel must have all cargo tank closures properly secured or maintain a negative pressure within the vessel when a closure is opened and must have all pressure or vacuum relief valves operating within certified limits, as specified by classification society or flag state, until the VOC vapors are routed to a control device.

(f) In addition to the requirements in subsections (a) - (c) of this section, all VOC vapors from a floating roof storage tank must be routed to a control device immediately but no later than 24 hours after the tank has been emptied to the extent practical or the drain pump loses suction.

§115.542. Control Requirements.

(a) A control device used to comply with §115.541 of this title (relating to Emission Specifications) must meet one of the following conditions at all times when volatile organic compounds (VOC) vapors are routed to the device.

(1) The control device must maintain a control efficiency of at least 90% and must be operated in a manner consistent with how the device was operated during the control efficiency demonstration required in §115.544(c) of this title (relating to Inspection, Monitoring, and Testing Requirements).

(2) The control device must be a flare that is designed and operated in accordance with 40 Code of Federal Regulations §60.18(b) - (f), and is lit at all times when VOC vapors are routed to the flare.

(3) The control device must be a recirculation system that does not cause the pressure inside the tank or vessel to increase by more than one inch water pressure above atmospheric pressure at any time during the degassing or cleaning operation.

(4) The VOC concentration at the outlet of the control device must be less than 500 parts per million by volume (ppmv) at 0% oxygen, dry basis, expressed as methane.

(b) All VOC vapors must be routed to a control device until the VOC concentration before the inlet to the control device is less than 34,000 ppmv expressed as methane or less than 50% of the lower explosive limit expressed as methane. After one of the conditions has been satisfied, the tank or vessel may be vented to the atmosphere without control for the remainder of the degassing or cleaning operation, except as specified in §115.544(b)(4) of this title.

(c) Degassing and cleaning equipment must be designed and operated to prevent avoidable liquid or gaseous VOC leaks.

(d) When degassing or cleaning is effected through the hatches or manways of a storage tank, all lines must be equipped with fittings that make vapor-tight connections and that are closed when disconnected or equipped to discharge residual VOC in the line into a closed recovery or disposal system after degassing or cleaning is complete.

(e) When degassing or cleaning is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch. A means must be provided to minimize liquid drainage from the degassing or cleaning equipment when it is removed from the hatch or to accomplish drainage before such removal.

(f) When degassing or cleaning is effected through the hatches of a marine vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch, or a negative pressure inside the cargo tank must be maintained. A means must be provided to minimize liquid drainage from the degassing or cleaning equipment when it is removed from the hatch or to accomplish drainage before such removal.

§115.543. Alternate Control Requirements.

For the owner or operator of a storage tank, transport vessel, or marine vessel subject to this division, [For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions),] alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division [(relating to Degassing or Cleaning of Stationary, Marine, and Transport Vessels)] may be approved by the executive director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

§115.544. Inspection, Monitoring, and Testing Requirements.

(a) Inspection requirements. The following inspection requirements apply during the degassing or cleaning of any storage tank, transport vessel, or marine vessel subject to this division. [For all persons in

the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions), the following inspection requirements apply.]

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from volatile organic compounds [compound] (VOC) transfer operations must be conducted during each degassing or cleaning operation [by the owner or operator of the VOC degassing and cleaning facility].

(2) Degassing [VOC degassing] or cleaning through the affected transfer lines must be discontinued when a leak is observed and the leak cannot be repaired within a reasonable length of time. [The intentional bypassing of a vapor control device during cleaning or degassing is prohibited.]

(b) Monitoring requirements. The following monitoring requirements apply during the degassing or cleaning of any storage tank, transport vessel, or marine vessel subject to this division. Monitoring at least once every 15 minutes is sufficient to demonstrate compliance with the continuous monitoring requirements in this subsection.

(1) Any monitoring device used to comply with this subsection must be installed, calibrated, maintained, and operated according to the manufacturer's instructions.

(2) The owner or operator shall monitor any operational parameters necessary to demonstrate the proper functioning of a control device used to comply with this division at all times when VOC vapors are routed to the device.

(A) For a carbon adsorption system, the owner or operator shall continuously monitor the exhaust gas VOC concentration of any carbon adsorption system that regenerates the carbon bed directly to determine breakthrough. Alternatively, the owner or operator shall periodically monitor the exhaust gas VOC determine breakthrough and switch the exhaust gas flow to fresh carbon for any carbon adsorption system that does not regenerate the carbon bed directly, as specified by 40 Code of Federal Regulations (CFR) §61.354(d), except that any monitoring must be conducted at intervals no greater than 20% of the design carbon replacement interval. For the purpose of this division, breakthrough is defined as a measured VOC concentration exceeding 100 parts per million by volume (ppmv) above background expressed as methane.

(B) For a catalytic incinerator, the owner or operator shall continuously monitor the inlet and outlet gas temperature.

(C) For a condensation system, the owner or operator shall continuously monitor the outlet gas temperature to ensure the temperature is below the manufacturer's recommended operating temperature for controlling the VOC vapors routed to the device.

(D) For a direct-flame incinerator, the owner or operator shall continuously monitor the exhaust gas temperature immediately downstream of the device.

(E) For a flare, the owner or operator shall:

(i) continuously monitor the net heating value of the VOC vapors routed to the flare;

(ii) continuously monitor the total volume of supplemental fuel added to the VOC vapors routed to the flare and assume the net heating value of the VOC vapors routed to the flare is zero; or

(iii) use calculations to demonstrate that for the material stored in the tank or vessel the net heating value of the VOC vapors routed to the flare cannot drop below the minimum net heating value requirements in 40 CFR §60.18 until the concentration of VOC in the vapors being routed to the flare is less than the concentration limits in §115.542(b) of this title (relating to Control Requirements).

(F) For an internal combustion engine or any control device used to comply with the optional exhaust gas concentration limit in §115.542(a)(4) of this title, the owner or operator shall monitor the exhaust gas VOC concentration at least once per hour. The hourly VOC concentration must be determined by either:

(i) using the integrated bag sampling procedure in Method 18 (40 CFR Part 60, Appendix A), §8.2.1.1 - 8.2.1.4, and a total hydrocarbon analyzer that meets instrument and calibration specifications in Method 21; or

(ii) using Method 25A (40 CFR Part 60, Appendix A) to continuously monitor the exhaust gas VOC concentration.

(G) For a thermal oxidizer, the owner or operator shall continuously monitor the combustion chamber temperature. If necessary to demonstrate compliance with subsection (c)(3) of this section, the owner or operator shall also continuously monitor the gas flow rate into the thermal oxidizer to determine the combustion chamber residence time.

(H) For a recirculation system, the owner or operator shall:

(i) continuously monitor the pressure inside the tank or vessel or continuously monitor the gas flow rate at the inlet and outlet of the control device; and

(ii) monitor all components of the recirculation system, including all valves and connectors, for VOC leaks using the procedure in Method 21 (40 CFR Part 60, Appendix A-7) and begin this monitoring within one hour after beginning any degassing or cleaning operation. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.

(3) The owner or operator shall monitor the VOC concentration before the inlet of the control device to demonstrate compliance with the VOC concentration or percent lower explosive limit

(LEL) thresholds in §115.542(b) of this title and determine if the storage tank, transport vessel, or marine vessel can be vented to atmosphere without control for the remainder of the degassing or cleaning operation, except as specified in paragraph (4) of this subsection. The VOC concentration must be monitored once per minute for at least five minutes and all measurements must be less than the VOC concentration limits in §115.542(b) of this title.

(4) After demonstrating compliance with the applicable VOC concentration or percent LEL thresholds in §115.542(b) of this title in accordance with paragraph (3) of this subsection, the owner or operator of any storage tank, transport vessel, or marine vessel shall comply with one of the following conditions.

(A) The VOC concentration inside the tank or vessel must be monitored once every 12 hours while venting to atmosphere without control until five consecutive measurements collected at 12 hour intervals are measured to be less than 34,000 ppmv expressed as methane or less than 50% of the LEL expressed as methane. The VOC concentration measurement required by paragraph (3) of this subsection may be considered the first of these five consecutive measurements.

(i) If uncontrolled venting to the atmosphere has been suspended for more than four hours, the VOC concentration inside the tank or vessel must be measured upon restart of the degassing and cleaning operation.

(ii) If any of the VOC concentration measurements equal or exceed 34,000 ppmv expressed as methane or 50% of the LEL expressed as methane, the tank or vessel must be routed to the control device until the VOC concentration before the inlet to the control device is below 34,000 ppmv expressed as methane or less than 50% of the LEL expressed as methane.

(B) The storage tank, transport vessel, or marine vessel can be vented to atmosphere without control for the remainder of the degassing or cleaning operation and no further VOC measurements are required if the VOC concentration inside the tank or vessel is less than 1% of the LEL expressed as methane before the owner or operator stops routing the VOC vapors to a control device in accordance with §115.541 of this title (relating to Emission Specifications) and §115.542 of this title.

(C) Before venting the tank or vessel to atmosphere, the owner or operator shall demonstrate that the VOC concentration inside the tank or vessel will not increase above the applicable concentration limit in §115.542(b) of this title by using the following procedure.

(i) The owner or operator stops routing the VOC vapors from the degassing and cleaning operations to the control device but does not allow the VOC vapors inside the tank or vessel to vent to atmosphere.

(ii) The VOC concentration inside the tank or vessel is measured at least one hour but no more than two hours after the owner or operator stops routing VOC vapors to the control device.

(iii) If the VOC concentration measured inside the tank or vessel according to clause (ii) of this subparagraph is still below the applicable concentration limit in §115.542(b) of this title, the tank or vessel can be vented to atmosphere without control for the remainder of the degassing or cleaning operation. If VOC concentration measured inside the tank or vessel exceeds the applicable concentration limit in §115.542(b) of this title, the VOC vapors from the tank or vessel must be routed to the control device until the VOC concentration before the inlet to the control device meets the applicable concentration limit in §115.542(b) of this title and the owner or operator demonstrates compliance with the conditions of this subparagraph.

(c) Testing requirements. The following testing requirements apply to the owner or operator of any storage tank, transport vessel, or marine vessel subject to the requirements in this division if a control device is used to comply with the emission specifications in §115.541 of this title.

(1) For a control device used to comply with the requirements in §115.542(a)(1) of this title, an initial control efficiency demonstration must be conducted in accordance with the approved test methods in §115.545 of this title (relating to Approved Test Methods) and the device must be retested within 60 days after any modification that could reasonably be expected to affect the efficiency of a control device.

(2) For a portable control device used to comply with the requirements in §115.542(a)(1) of this title, a periodic control efficiency demonstration must be conducted at least once every 60 months in accordance with the approved test methods in §115.545 of this title.

(3) For a portable thermal oxidizer, the periodic control efficiency demonstration in paragraph (2) of this subsection will not be required if the combustion chamber temperature is at least 1,400 degrees Fahrenheit and the flow rate of the VOC vapors routed to the device is limited to assure at least a 0.5 second combustion chamber residence time at all times when the device is in use.

§115.545. Approved Test Methods.

Compliance with the requirements in this division must be determined by applying one or more of the following test methods or procedures, as appropriate.

(1) Methods 1 - 4 (40 Code of Federal Regulations (CFR) Part 60, Appendix A) must be used for determining flow rates.

(2) Methods 3, 3A, or 3B (40 CFR Part 60, Appendix A) must be used to determine exhaust gas oxygen concentration (O₂) for making any O₂ corrections necessary for §115.542(a)(4) of this title (relating to Control Requirements).

(3) Method 18 (40 CFR Part 60, Appendix A) must be used for determining gaseous organic compound emissions by gas chromatography.

(A) If Method 18 is used to demonstrate compliance with the volatile organic compounds (VOC) concentration monitoring requirements in §115.542(b) of this title and §115.544(b)(4) of this title (relating to Inspection, Monitoring, and Testing Requirements), only one bag sample needs to be collected for each concentration measurement.

(B) If Method 18 is used to demonstrate compliance with the VOC concentration monitoring requirements in §115.544(b)(2)(F) of this title for an internal combustion engine or any control device used to comply with the option in §115.542(a)(4) of this title to limit exhaust concentration, the hourly VOC concentration must be determined by using the integrated bag sampling procedure in Method 18, §8.2.1.1 - 8.2.1.4.

(4) Method 19 (40 CFR Part 60, Appendix A) may be used for determining exhaust gas flow rates on combustion control devices in lieu of using Methods 1 - 4.

(5) Method 21 (40 CFR Part 60, Appendix A-7) must be used for determining VOC leaks. An instrument meeting the specifications and calibration requirements in Method 21 may be used for demonstrating compliance with the VOC concentration monitoring requirements in §115.542(b) and §115.544(b)(4) of this title with the provision that the instrument response factor criteria in §8.1 of

Method 21 may be determined using the average composition of the liquid in the tank rather than for each individual liquid.

(6) Method 25 (40 CFR Part 60, Appendix A) must be used for determining total gaseous nonmethane organic emissions as carbon.

(7) Methods 25A or 25B (40 CFR Part 60, Appendix A) must be used for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis.

(8) Method 27 (40 CFR Part 60, Appendix A) must be used for determining tank-truck leaks.

(9) A portable O₂ analyzer that is calibrated, maintained, and operated according to the manufacturer's instructions may be used to determine exhaust gas O₂ concentration for making any O₂ corrections necessary for §115.542(a)(4) of this title in lieu of using Methods 3, 3A, or 3B.

(10) Additional test procedures described in 40 CFR §60.503(b) - (d) (effective February 14, 1989) must be used for determining compliance for bulk gasoline terminals.

(11) True vapor pressure must be determined using American Society for Testing and Materials Test Method D323, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with American Petroleum Institute

Publication 2517, Third Edition, 1989. For the purposes of temperature correction, the owner or operator shall use the higher of either 95 degrees Fahrenheit or the actual storage temperature. Actual storage temperature of an unheated tank or vessel may be determined using the maximum local monthly average ambient temperature as reported by the National Weather Service. Actual storage temperature of a heated tank or vessel must be determined using either the measured temperature or the temperature set point of the tank or vessel.

(12) The test procedures in 40 CFR §63.565(c) or §61.304(f) must be used for determination of marine vessel vapor tightness.

(13) Lower explosive limit (LEL) detectors may be used for the percent LEL concentration measurement required by §115.542(b) and §115.544(b)(4) of this title, if the detector is calibrated and maintained according to manufacturer's specifications.

(14) Minor modifications to the test methods in this section may be used if approved by the executive director.

(15) Test methods other than those specified in this section may be used if validated by 40 CFR Part 63, Appendix A, Test Method 301 and approved by the executive director.

§115.546. [Monitoring and] Recordkeeping and Notification Requirements.

(a) Recordkeeping requirements. The [For facilities in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions) affected by §115.541 and §115.542 of this title (relating to Emission Specifications and Control Requirements), the] owner or operator of any volatile organic compound (VOC) storage tank, transport vessel, or marine vessel subject to the requirements in this division [degassing or cleaning facility] shall maintain the following records on site [information at the facility] for at least two years. Any records created on or after March 1, 2009, must be maintained on site for at least five years. The owner or operator [and] shall make these records [such information] available upon request to authorized representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency with jurisdiction. [having jurisdiction in the area:]

(1) For [for] storage tank, transport vessel, or marine vessel degassing or cleaning operations subject to the requirements in this division, the owner or operator shall maintain records of:

(A) [a record of] the type and number of storage tanks, [all] transport vessels, [stationary VOC storage tanks,] and marine vessels that are degassed or cleaned [at the affected facility];

(B) the chemical name and estimated liquid quantity of VOC contained in each storage tank, transport vessel, or marine vessel prior to degassing or cleaning;

(C) the chemical name and estimated liquid quantity of VOC removed from each storage tank, transport vessel, or marine vessel; [and]

(D) the VOC concentration or percent of lower explosive limit measurements required in §115.544(b)(3) of this title (relating to Inspection, Monitoring, and Testing Requirements) to determine when the storage tank, transport vessel, or marine vessel can be vented to the atmosphere without control; and [after January 1, 2009, in the Houston/Galveston/Brazoria area, a record of the measurements of VOC concentration or percent of lower explosive limit from the storage tank, transport vessel, or marine vessel being degassed while the tank or vessel is vented to the atmosphere;]

(E) the VOC concentration or percent of lower explosive limit measurements required by §115.544(b)(4) of this title.

(2) For a control device used to comply with the requirements in this division, the owner or operator shall maintain records of any operational parameter monitoring required in §115.544(b)(2) of this title. These records must include, but are not limited to, the following.

(A) For a carbon adsorption system, the owner or operator shall maintain records of the VOC concentration measurements required by §115.544(b)(2)(A) of this title.

(B) For a catalytic incinerator, the owner or operator shall maintain records of the continuous temperature monitoring required in §115.544(b)(2)(B) of this title.

(C) For a condensation system, the owner or operator shall maintain records of the continuous temperature monitoring required in §115.544(b)(2)(C) of this title.

(D) For a direct-flame incinerator, the owner or operator shall maintain records of the continuous temperature monitoring required in §115.544(b)(2)(D) of this title.

(E) For a flare, the owner or operator shall maintain records of the continuous monitoring or calculations required in §115.544(b)(2)(E) of this title.

(F) For an internal combustion engine or any control device used to comply with the optional exhaust concentration limit in §115.542(a)(4) (relating to Control Requirements) of this title, the owner or operator shall maintain records of the hourly VOC concentration measurements required in §115.544(b)(2)(F) of this title and records of the monitoring method used.

(G) For a thermal oxidizer, the owner or operator shall maintain records of the continuous temperature monitoring required in §115.544(b)(2)(G) of this title. If necessary to demonstrate compliance with §115.544(c)(3) of this title, the owner or operator shall maintain records of the continuous monitoring of the gas flow rate into the thermal oxidizer to determine the combustion chamber residence time.

(H) For a recirculation system, the owner or operator shall maintain records of the continuous pressure or flow rate monitoring required in §115.544(b)(2)(H)(i) of this title and records

of the VOC leak monitoring required in §115.544(b)(2)(H)(ii) of this title, including the VOC measurements and the time the monitoring began.

[(2) for vapor control systems:]

[(A) continuous monitoring and recording of the exhaust gas temperature immediately downstream of a direct-flame incinerator;]

[(B) continuous monitoring and recording of the inlet and outlet gas temperature of a catalytic incinerator; and]

[(C) continuous monitoring and recording of the exhaust gas VOC concentration for carbon adsorption systems that contain facilities to regenerate the carbon bed directly, as defined in §115.10 of this title (relating to Definitions); or periodic monitoring of the exhaust gas VOC as specified by 40 Code of Federal Regulations §61.354(d) (effective October 17, 2000), of any carbon adsorption system that does not regenerate the carbon bed directly, to determine breakthrough;]

(3) The owner or operator shall maintain records of the results of any leak inspection and repair conducted in accordance with the requirements in §115.544(a) of this title. [provisions specified in §115.544 of this title (relating to Inspection Requirements) ; and]

(4) The owner or operator shall maintain records of any control efficiency demonstration required in §115.544(c) of this title and the results of any testing conducted in accordance with the provisions specified in §115.545 of this title (relating to Approved Test Methods). The records must contain all applicable requirements from the commission's *Sampling Procedures Manual, Chapter 14.0, Contents of Sampling Reports* (January 2003, revision one).

(5) The owner or operator shall maintain records of the manufacturer's instructions for installation, calibration, maintenance, and operation for any monitoring device used to comply with the requirements in this division.

(b) Notification requirements. In the Houston-Galveston-Brazoria area, upon request by authorized representatives of the executive director, the owner or operator of any storage tank, transport vessel, or marine vessel subject to this division shall notify the appropriate regional office of upcoming degassing or cleaning operations.

§115.547. Exemptions.

The following exemptions apply to the owner or operator of any storage tank, transport vessel, or marine vessel subject to this division. [For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions), the following exemptions apply.]

(1) Any storage tank with a storage capacity of less than one million gallons is exempt from this division. After January 1, 2009, in the Houston-Galveston-Brazoria area, the storage tanks listed in subparagraphs (A) and (B) of this paragraph are no longer exempt from this division.

(A) Storage tanks with a storage capacity greater than or equal to 250,000 gallons but less than one million gallons.

(B) Storage tanks with a storage capacity greater than or equal to 75,000 gallons but less than 250,000 gallons storing materials with true vapor pressure greater than 2.6 pounds per square inch absolute.

(2) In the Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and Houston-Galveston-Brazoria areas, any transport vessel with a storage capacity of less than 8,000 gallons is exempt from this division.

(3) In the Beaumont-Port Arthur and Houston-Galveston-Brazoria areas, any marine vessel with a storage capacity of less than 420,000 gallons is exempt from this division.

[(1) Degassing or cleaning any storage tank, transport vessel, or marine vessel with a vapor space partial pressure less than 0.5 pounds per square inch absolute (psia) (3.4 kilo Pascals) of

volatile organic compound (VOC) under actual storage conditions is exempt from the requirements of this division (relating to Degassing or Cleaning of Stationary, Marine, and Transport Vessels)].

[(2) Degassing or cleaning any transport vessel with a nominal storage capacity of less than 8,000 gallons, or any stationary VOC storage tank with a nominal storage capacity of less than 1 million gallons, or any marine vessel with a nominal storage capacity of less than 10,000 barrels (420,000 gallons), is exempt from the requirements of this division. After January 1, 2009, stationary VOC storage tanks in the Houston/Galveston/Brazoria area with a nominal storage capacity and vapor pressure of stored liquid as listed in subparagraphs (A) and (B) of this paragraph are no longer exempt from the requirements of this division.]

[(A) Storage tanks with nominal storage capacity greater than or equal to 250,000 gallons but less than 1 million gallons.]

[(B) Storage tanks with nominal storage capacity greater than or equal to 75,000 gallons but less than 250,000 gallons storing materials with true vapor pressure greater than 2.6 psia.]

~~(4)~~ [(3)] Any [stationary VOC] storage tank is exempt from this division during preventative maintenance, roof repair, primary seal inspection, or removal and installation of a secondary seal, if product is not moved in or out of the storage tank, emissions are minimized, and the repair is completed within seven calendar days [, is exempt from the requirements of this division].

(5) [(4)] Any marine vessel that has sustained damage that prevents a cargo tank's opening from being properly secured, causes the onboard vapor recovery system to be inoperative, or prevents the pressure or vacuum [pressure/vacuum] relief valves from operating within certified limits as specified by classification society or flag state is exempt from the requirements in §115.541 and §115.542 [§115.541(b) and §115.542(b)] of this title (relating to Emission Specifications and Control Requirements); however, all reasonable measures must be taken to minimize emissions of volatile organic compounds. This exemption will only apply for 30 calendar days after the damage to the cargo tank is sustained [VOC emissions].

(6) [(5)] Any oceangoing, self-propelled marine vessel is exempt from [the degassing or cleaning requirements of] this division.

§115.549. [Counties and] Compliance Schedules.

(a) All affected owners or operators in [persons in the] Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties were required to be in compliance with this division by November 15, 1996, and shall continue to comply with this division [(relating to Degassing or Cleaning of Stationary, Marine, and Transport Vessels) as required by §115.930 of this title (relating to Compliance Dates)].

(b) All affected owners or operators [persons] in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this division as soon as practicable, but no later than May 21, 2011. [one year,

after the commission publishes notification in the Texas Register of its determination that this contingency rule is necessary as a result of failure to attain the national ambient air quality standard (NAAQS) for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act (FCAA), §172(c)(9).]

(c) All affected owners or operators [persons] in El Paso County shall be in compliance with this division as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the National Ambient Air Quality Standard [NAAQS] for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act, [FCAA,] §172(c)(9).

(d) All affected owners or operators [persons] in Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties shall comply with the requirements in §§115.542(b)(2) and (c)(2), 115.544(b)(4), and 115.546(a)(1)(E) of this title (relating to Control Requirements; Inspection, Monitoring, and Testing Requirements; and Recordkeeping and Notification Requirements) [§115.542(a)(6) and (b)(5), and §115.546(1)(D) of this title (relating to Control Requirements and Monitoring and Recordkeeping Requirements)] as soon as practicable but no later January 1, 2009.

SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES

DIVISION 3: DEGASSING OR CLEANING OF STATIONARY, MARINE, AND TRANSPORT

VESSELS

[§§115.541, 115.542, 115.545]

STATUTORY AUTHORITY

The repealed 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 TWC; TWC, §5.103, concerning Rules, that authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; 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 repeals 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. The repeals 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 sampling methods. The repeals are also proposed under Federal Clean Air Act (FCAA), 42 United States Code (USC), §§7401, *et seq.*, which requires states to submit SIP revisions that specify the manner in which the national ambient air quality standard will be achieved and maintained within each air quality control region of the state.

The proposed repeals implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021, and FCAA, 42 USC, §§7401 *et seq.*

[§115.541. Emission Specifications.]

[(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions), the following emission specifications apply to degassing during or in preparation of cleaning.]

[(1) For all stationary volatile organic compound (VOC) storage tanks with a nominal storage capacity of one million gallons or more and after January 1, 2009, storage tanks in the Houston/Galveston/Brazoria area with a nominal storage capacity of 250,000 gallons or greater or with a nominal storage capacity of 75,000 gallons or greater storing materials with a true vapor pressure greater than 2.6 pounds per square inch absolute (psia).]

[(A) No person shall permit VOC emissions with a vapor space partial pressure greater than or equal to 0.5 psia (3.4 kilo Pascals (kPa)) under actual storage conditions unless the vapors are processed by a vapor control system.]

[(B) The vapor control system must maintain a control efficiency of at least 90%.]

[(C) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, may originate from the degassing or cleaning operations.]

[(D) The intentional bypassing of a vapor control device used during degassing or cleaning is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device must be repaired as soon as practical.]

[(2) For all transport vessels, as defined in §115.10 of this title, with a nominal storage capacity of 8,000 gallons or more.]

[(A) No person shall permit VOC emissions with a vapor space partial pressure greater than or equal to 0.5 psia (3.4 kPa) under actual storage conditions unless the vapors are processed by a vapor control system].

[(B) The vapor control system must maintain a control efficiency of at least 90%.]

[(C) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, may originate from the degassing or cleaning operations.]

[(D) The intentional bypassing of a vapor control device used during degassing or cleaning] is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device must be repaired as soon as practical.]

[(E) All transport vessels, as defined in §115.10 of this title, must be kept vapor-tight at all times until the VOC vapors remaining in the vessel are discharged to a vapor control system.]

[(b) For all persons in the Beaumont/Port Arthur and Houston/Galveston/Brazoria areas, the following emission specifications apply to degassing during or in preparation of cleaning for all marine vessels, as defined in §101.1 of this title (relating to Definitions), that have a nominal storage capacity of 10,000 barrels (420,000 gallons) or more and contain VOC.]

[(1) No person shall degas or clean a tank that carried a VOC with a vapor partial pressure greater than or equal to 0.5 psia (3.4 kPa) unless the vapors are processed by a vapor control system.]

[(2) The vapor control system must maintain a control efficiency of at least 90%.]

[(3) When conducting degassing or cleaning operations, no avoidable liquid or gaseous leaks, as detected by sight or sound, may originate from the degassing or cleaning operations.]

[(4) The intentional bypassing of a vapor control device used degassing or cleaning is prohibited. Any visible VOC leak originating from the vapor control device or other associated product recovery device must be repaired as soon as possible.]

[(5) All marine vessels, as defined in §101.1 of this title, containing VOC must have all cargo tank closures properly secured, or maintain a negative pressure within the tank when a closure is opened, and must have all pressure/vacuum relief valves operating within certified limits as specified by classification society or flag state until the vapors are discharged to a vapor control system if the vessel is degassed or cleaned.]

§115.542. Control Requirements.]

[(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions), the following control requirements apply to stationary storage tanks and transport vessels.]

[(1) No person shall permit the degassing or cleaning of volatile organic compounds (VOC) from a stationary storage tank or transport vessel unless the vapors are processed by a vapor control system.]

[(2) When degassing or cleaning is effected through the hatches of a transport vessel with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch. A means must be provided to minimize liquid drainage from the degassing or cleaning device when it is removed from the hatch of any transport vessel or to accomplish drainage before such removal.]

[(3) When degassing or cleaning is effected through the hatches or manways of stationary VOC storage tanks, all lines must be equipped with fittings that make vapor-tight connections and that are closed when disconnected; or equipped to permit residual VOC in the line to discharge into a recovery or disposal system after degassing or cleaning is complete.]

[(4) Degassing and cleaning equipment must be designed and operated to prevent avoidable VOC leaks.]

[(5) In the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and until January 1, 2009, in the Houston/Galveston/Brazoria areas, vapors must be routed to the control device until a turnover of at least four vapor space volumes has occurred, or four turnovers of the vapor space under a floating roof, or the partial vapor pressure is less than 0.5 pounds per square inch absolute (psia) (19,000 parts per million

by weight (ppmw), or 34,000 parts per million by volume (ppmv) expressed as methane). After one of these conditions has been satisfied, the storage tank or transport vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process.]

[(6) After January 1, 2009, in the Houston/Galveston/Brazoria area, vapors must be routed to the control device until the VOC measured concentration before the inlet to the control device is less than 34,000 ppmv as methane or less than 50% of the lower explosive limit (LEL). After this condition has been satisfied, the storage tank or transport vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process provided that the VOC concentration remains below 34,000 ppmv as methane or less than 50% of the LEL. The VOC concentration must be measured once every 12 hours if the storage tank or transport vessel is vented continuously to the atmosphere, and upon restart of the degassing and cleaning operation if venting to the atmosphere has been suspended for more than four hours. If any measurements of the VOC concentration equal or exceed 34,000 ppmv as methane or are equal to or greater than 50% of the LEL, the storage tank or transport vessel must be routed to the control device until the concentration is below 34,000 ppmv as methane or less than 50% of the LEL. While venting to the atmosphere, measurements must continue until five consecutive readings of VOC concentrations collected at 12 hour intervals are measured to be less than 34,000 ppmv or less than 50% of the LEL.]

[(b) For all persons in the Beaumont/Port Arthur and Houston/Galveston/Brazoria areas, the following control requirements apply to marine vessels.]

[(1) No person shall permit the degassing or cleaning of a marine vessel containing VOC unless the vapors are processed by a vapor control system.]

[(2) When degassing or cleaning is effected through the hatches of a marine vessel containing VOC with a loading arm equipped with a vapor collection adapter, then pneumatic, hydraulic, or other mechanical means must be provided to force a vapor-tight seal between the adapter and the hatch, or a negative pressure inside the cargo tank must be maintained. A means must be provided to minimize liquid drainage from the degassing or cleaning device and line when they are removed from the hatch of any marine vessel containing VOC or to accomplish drainage before such removal.]

[(3) Degassing and cleaning equipment must be designed and operated to prevent avoidable VOC leaks.]

[(4) In the Beaumont/Port Arthur area and until January 1, 2009, in the Houston/Galveston/Brazoria area, vapors must be routed to the control device until the marine vessel is stripped VOC liquid-free and a turnover of at least four vapor space volumes has occurred, the partial vapor pressure is less than 0.5 psia (19,000 ppmw, or 34,000 ppmv expressed as methane), or the concentration of VOC is less than 20% of the LEL. After one of these conditions has been satisfied, the marine vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process.]

[(5) After January 1, 2009, in the Houston/Galveston/Brazoria area, vapors must be routed to the control device until the VOC measured concentration before the inlet to the control device is

less than 34,000 ppmv as methane or less than 50% of the LEL. After this condition has been satisfied, the marine vessel may be vented to the atmosphere for the remainder of the degassing or cleaning process provided that the VOC concentration remains below 34,000 ppmv as methane or less than 50% of the LEL. The VOC concentration must be measured once every 12 hours if the marine vessel is vented continuously to the atmosphere, and upon restart of the degassing and cleaning operation if venting to the atmosphere has been suspended for more than four hours. If any measurements of the VOC concentration equal or exceed 34,000 ppmv as methane or are equal to or greater than 50% of the LEL, the marine vessel must be routed to the control device until the concentration is below 34,000 ppmv as methane or less than 50% of the LEL. While venting to the atmosphere, measurements must continue until five consecutive readings of VOC concentrations collected at 12-hour intervals are measured to be less than 34,000 ppmv or less than 50% of the LEL.]

[§115.545. Approved Test Methods.]

[For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston/Brazoria areas as defined in §115.10 of this title (relating to Definitions), compliance with §115.541 and §115.542 of this title (relating to Emission Specifications and Control Requirements) must be determined by applying the following test methods, as appropriate:]

[(1) Test Methods 1-4 (40 Code of Federal Regulations (CFR) Part 60, Appendix A) for determining flow rates;]

[(2) Test Method 18 (40 CFR Part 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;]

[(3) Test Method 25 (40 CFR Part 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;]

[(4) Test Methods 25A or 25B (40 CFR Part 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;]

[(5) additional test procedures described in 40 CFR §60.503(b), (c), and (d) (effective February 14, 1989) for determining compliance for bulk gasoline terminals;]

[(6) Test Method 21 (40 CFR Part 60, Appendix A) for determining volatile organic compound (VOC) leaks;]

[(7) determination of true vapor pressure using American Society for Testing and Materials (ASTM) Test Method D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989;]

[(8) Test Method 27 (40 CFR Part 60, Appendix A) for determining tank-truck leaks;]

[(9) 40 CFR §63.565(c) (effective September 19, 1995) or 40 CFR §61.304(f) (effective October 17, 2000) for determination of marine vessel vapor tightness;]

[(10) minor modifications to these test methods approved by the executive director; or]

[(11) VOC concentration measurements required by §115.542(a)(6) and (b)(5) of this title (relating to Control Requirements) must be performed using one of the methods or measurement instruments listed in subparagraphs (A) - (F) of this paragraph.]

[(A) Test Method 21 (40 CFR Part 60, Appendix A). The instrument response factor criteria in §8.1 of [the United States Environmental Protection Agency Method 21 may be determined using the average composition of the liquid in the tank rather than for each individual liquid.]

[(B) Test Method 18 (40 CFR Part 60, Appendix A) except that only one bag sample needs to be collected for each concentration measurement.]

[(C) Bag samples, provided the means of collecting the sample and the type of bag used are appropriate and representative of the type of space being sampled and the analytical method used to evaluate bag contents are appropriate for the concentration levels and compound types.]

[(D) Test Method 25A (40 CFR Part 60, Appendix A).]

[(E) Portable hydrocarbon gas analyzer using an appropriate detector that is effective in the concentration range being measured and calibrated with compounds of interest in each case. Analyzers must be calibrated and maintained according to manufacturer's specifications.]

[(F) Lower explosive limit detector. The detector must be calibrated and maintained according to manufacturer's specifications.]