Texas Commission on Environmental Quality

5 Chapter 115 - Control of Air Pollution from Volatile Organic Compounds

5B Subchapter B : General Volatile Organic Compound Sources

5B1 DIVISION 1 : STORAGE OF ORGANIC COMPOUNDS
As approved by EPA September 9, 2014 (79 FR 53299), effective November 10, 2014 (TXd160), Regulations.gov document EPA-R06-OAR-2012-0096 [TX130].

Sections 110, 111, 112, 113, 114, 115, 116, 117, 118, 119 are as adopted by TCEQ December 7, 2011 (not December 1, 2011) effective December 29, 2011 and submitted to EPA January 17, 2012 (5-91).
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Error in Federal Register amendatory language: On pages 79 FR 53302 and 53303, the State approval/submittal date for each section should be ''12/7/2011'' NOT ''12/1/2011''.

Struck-out text not in SIP.

Outline:

****************************end outline tx5B1d160***************v5k******

~~THSC, §382.021, concerning Sampling Methods and Procedures, that authorizes the commission to prescribe sampling methods. The amendments and new sections are also adopted 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 Standards will be achieved and maintained within each air quality control region of the state.~~

~~The amendments and new sections implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021; and FCAA, 42 USC, §§7401 *et seq.*~~

§115.110. Applicability and Definitions.

(a) Applicability. Except as specified in §115.111 of this title (relating to Exemptions), this division applies to any storage tank in which volatile organic compounds are placed, stored, or held that is located in:

(1) the Beaumont-Port Arthur area, as defined in §115.10 of this title (relating to Definitions);

(2) the Dallas-Fort Worth area, as defined in §115.10 of this title;

(3) the El Paso area, as defined in §115.10 of this title;

(4) the Houston-Galveston-Brazoria area, as defined in §115.10 of this title; and

(5) Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties.

(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, respectively), 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) **Deck cover**--A device that covers an opening in a floating roof deck. Some deck covers move horizontally relative to the deck (i.e., a sliding cover).

(2) **Flexible enclosure system**--A system that includes all of the following: a flexible device that completely encloses the slotted guidepole and eliminates the hydrocarbon vapor emission pathway from inside the tank through the guidepole slots to the outside air; a guidepole cover at the top of the guidepole; and a well cover positioned at the top of the guidepole well that seals any openings between the well cover and the guidepole (e.g., pole wiper), any openings between the well cover and any other objects that pass through the well cover, and any other openings in the top of the guidepole well.

(3) **Incompatible liquid**--A liquid that is a different chemical compound, a different chemical mixture, a different grade of liquid material, or a fuel with different regulatory specifications provided that the chemical compound, chemical mixture, grade of liquid material, or fuel would be unusable for its intended purpose due to contamination from the previously stored liquid.

(4) **Internal sleeve emission control system**--An emissions control system that includes all of the following: an internal guidepole sleeve that eliminates the hydrocarbon vapor emission pathway from inside the tank through the guidepole slots to the outside air; a guidepole cover at the top of the guidepole; and a well cover positioned at the top of the guidepole well that seals any openings between the well cover and the guidepole (e.g., pole wiper), any openings between the well cover and any other objects that pass through the well cover, and any other openings in the top of the guidepole well.

(5) **Pipeline breakout station**--A facility along a pipeline containing storage vessels used to relieve surges or receive and store crude oil or condensate from the pipeline for reinjection into the pipeline and continued transportation by pipeline or to other facilities.

(6) **Pole float**--A float located inside a guidepole that floats on the surface of the stored liquid. The rim of the float has a wiper or seal that extends to the inner surface of the pole.

(7) **Pole sleeve**--A device that extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening. The sleeve must extend into the stored liquid.

(8) **Pole wiper**--A seal that extends from either the cover or the rim of an opening in a floating roof deck to the outer surface of a pole that passes through the opening.

(9) **Slotted guidepole**--A guidepole or gaugepole that has slots or holes through the wall of the pole. The slots or holes allow the stored liquid to flow into the pole at liquid levels above the lowest operating level.

(10) **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.

(11) **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.

(12) **Tank battery**--A collection of equipment used to separate, treat, store, and transfer crude oil, condensate, natural gas, and produced water. A tank battery typically receives crude oil, condensate, natural gas, or some combination of

these extracted products from several production wells for accumulation and separation prior to transmission to a natural gas plant or petroleum refinery. A collection of storage tanks at a pipeline breakout station, petroleum refinery, or petrochemical plant is not considered to be a tank battery.

(13) **Vapor recovery unit**--A device that transfers hydrocarbon vapors to a fuel liquid or gas system, a sales liquid or gas system, or a liquid storage tank.

§115.111. Exemptions.

(a) The following exemptions apply 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), except as noted in paragraphs (2) and (9) - (11) of this subsection.

(1) Except as provided in §115.118 of this title (relating to Recordkeeping Requirements), a storage tank storing volatile organic compounds (VOC) with a true vapor pressure less than 1.5 pounds per square inch absolute (psia) is exempt from the requirements of this division.

(2) A storage tank with storage capacity less than 210,000 gallons storing crude oil or condensate prior to custody transfer in the Beaumont-Port Arthur, Dallas-Fort Worth, or El Paso areas is exempt from the requirements of this division. This exemption no longer applies in the Dallas-Fort Worth area beginning March 1, 2013.

(3) A storage tank with a storage capacity less than 25,000 gallons located at a motor vehicle fuel dispensing facility is exempt from the requirements of this division.

(4) A welded storage tank with a mechanical shoe primary seal that has a secondary seal from the top of the shoe seal to the tank wall (a shoe-mounted secondary seal) is exempt from the requirement for retrofitting with a rim-mounted secondary seal if the shoe-mounted secondary seal was installed or scheduled for installation before August 22, 1980.

(5) An external floating roof storage tank storing waxy, high pour point crude oils is exempt from any secondary seal requirements of §115.112(a), (d), and (e) of this title (relating to Control Requirements).

(6) A welded storage tank storing VOC with a true vapor pressure less than 4.0 psia is exempt from any external floating roof secondary seal requirement if any of the following types of primary seals were installed before August 22, 1980:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(7) A welded storage tank storing crude oil with a true vapor pressure equal to or greater than 4.0 psia and less than 6.0 psia is exempt from any external floating roof secondary seal requirement if any of the following types of primary seals were installed before December 10, 1982:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(8) A storage tank with storage capacity less than 1,000 gallons is exempt from the requirements of this division.

(9) In the Houston-Galveston-Brazoria area, a storage tank or tank battery storing condensate, as defined in §101.1 of this title (relating to Definitions), prior to custody transfer with a condensate throughput exceeding 1,500 barrels (63,000 gallons) per year on a rolling 12-month basis is exempt from the requirement in §115.112(d)(4) or (e)(4)(A) of this title, to control flashed gases if the owner or operator demonstrates, using the test methods specified in §115.117 of this title (relating to Approved Test Methods), that uncontrolled VOC emissions from the individual storage tank, or from the aggregate of storage tanks in a tank battery, are less than 25 tons per year on a rolling 12-month basis.

(10) In the Dallas-Fort Worth area, a storage tank or tank battery storing condensate prior to custody transfer with a condensate throughput exceeding 3,000 barrels (126,000 gallons) per year on a rolling 12-month basis is exempt from the requirement in §115.112(e)(4)(B)(i) of this title, to control flashed gases if the owner or operator demonstrates, using the test methods specified in §115.117 of this title, that uncontrolled VOC emissions from the individual storage tank, or from the aggregate of storage tanks in a tank battery, are less than 50 tons per year on a rolling 12-month basis. This exemption no longer applies 15 months after the date the commission publishes notice in the *Texas Register* as specified in §115.119(b)(1)(C) of this title (relating to Compliance Schedules) that the Dallas-Fort Worth area has been reclassified as a severe nonattainment area for the 1997 Eight-Hour Ozone National Ambient Air Quality Standard.

(11) In the Dallas-Fort Worth area, on or after the date specified in §115.119(b)(1)(C) of this title, a storage tank or tank battery storing condensate prior to custody transfer with a condensate throughput exceeding 1,500 barrels (63,000 gallons) per year on a rolling 12-month basis is exempt from the requirement in §115.112(e)(4)(B)(ii) of this title, to control flashed gases if the owner or operator demonstrates, using the test methods specified in §115.117 of this title, that uncontrolled VOC emissions from the individual storage tank, or from the aggregate of storage tanks in a tank battery, are less than 25 tons per year on a rolling 12-month basis.

(b) The following exemptions apply in Gregg, Nueces, and Victoria Counties.

(1) Except as provided in §115.118 of this title, a storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.

(2) A storage tank with storage capacity less than 210,000 gallons storing crude oil or condensate prior to custody transfer is exempt from the requirements of this division.

(3) A storage tank with storage capacity less than 25,000 gallons located at a motor vehicle fuel dispensing facility is exempt from the requirements of this division.

(4) A welded storage tank with a mechanical shoe primary seal that has a secondary seal from the top of the shoe seal to the tank wall (a shoe-mounted secondary seal) is exempt from the requirement for retrofitting with a rim-mounted secondary seal if the shoe-mounted secondary seal was installed or scheduled for installation before August 22, 1980.

(5) An external floating roof storage tank storing waxy, high pour point crude oils is exempt from any secondary seal requirements of §115.112(b) of this title.

(6) A welded storage tank storing VOC with a true vapor pressure less than 4.0 psia is exempt from any external secondary seal requirement if any of the following types of primary seals were installed before August 22, 1980:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(7) A welded storage tank storing crude oil with a true vapor pressure equal to or greater than 4.0 psia and less than 6.0 psia is exempt from any external secondary seal requirement if any of the following types of primary seals were installed before December 10, 1982:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(8) A storage tank with storage capacity less than 1,000 gallons is exempt from the requirements of this division.

(c) The following exemptions apply in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties.

(1) A storage tank storing VOC with a true vapor pressure less than 1.5 psia is exempt from the requirements of this division.

(2) Slotted guidepoles installed in a floating roof or cover storage tank are exempt from the provisions of §115.112(c) of this title.

(3) A storage tank with storage capacity between 1,000 gallons and 25,000 gallons is exempt from the requirements of §115.112(c)(1) of this title if construction began before May 12, 1973.

(4) A storage tank with storage capacity less than or equal to 420,000 gallons is exempt from the requirements of §115.112(c)(3) of this title.

(5) A storage tank with storage capacity less than 1,000 gallons is exempt from the requirements of this division.

§115.112. Control Requirements.

(a) The following requirements apply in the Beaumont-Port Arthur, Dallas-Fort Worth, and El Paso areas, as defined in §115.10 of this title (relating to Definitions). The control requirements in this subsection no longer apply in the Dallas-Fort Worth area beginning March 1, 2013.

(1) No person shall place, store, or hold in any storage tank any volatile organic compounds (VOC) unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table I(a) of this paragraph for VOC other than crude oil and condensate or Table II(a) of this paragraph for crude oil and condensate.

Figure: 30 TAC §115.112(a)(1)

Table I(a): Required Control for a Storage Tank Storing Volatile Organic Compounds (VOC) Other than Crude Oil and Condensate

True Vapor Pressure (pounds per square inch absolute (psia))	**Storage Capacity (gallon (gal))**	**Control Requirements**
≥ 1.5 psia and < 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe or Vapor control system
≥ 1.5 psia and < 11 psia	> 25,000 gal and ≤ 40,000 gal	Internal floating cover, or External floating roof (any type), or Vapor control system
≥ 1.5 psia and < 11 psia	> 40,000 gal	Internal floating cover, or External floating roof with primary seal (any type) and secondary seal, or Vapor control system

True Vapor Pressure (pounds per square inch absolute (psia))	Storage Capacity (gallon (gal))	Control Requirements
≥ 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe or Vapor control system
≥ 11 psia	> 25,000 gal	Submerged fill pipe and Vapor control system

Table II(a): Required Control for a Storage Tank Storing Crude Oil and Condensate

True Vapor Pressure (pounds per square inch absolute (psia))	Storage Capacity (gallon (gal))	Control Requirements
≥ 1.5 psia and < 11 psia	> 1,000 gal and ≤ 40,000 gal	Submerged fill pipe or Vapor control system
≥ 1.5 psia and < 11 psia	> 40,000 gal	Internal floating cover, or External floating roof with primary seal (any type) and secondary seal, or Vapor control system
≥ 11 psia	> 1,000 gal and ≤ 40,000 gal	Submerged fill pipe or Vapor control system
≥ 11 psia	> 40,000 gal	Submerged fill pipe and Vapor control system

(2) For an external floating roof or internal floating cover storage tank subject to the provisions of paragraph (1) of this subsection, the following requirements apply.

(A) All openings in an internal floating cover or external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents must provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid must be in a closed (i.e., no visible gap) position at all times except when the device is in actual use.

(B) Automatic bleeder vents (vacuum breaker vents) must be closed at all times except when the roof or cover is being floated off or landed on the roof or cover leg supports.

(C) Rim vents, if provided, must be set to open only when the roof or cover is being floated off the roof or cover leg supports or at the manufacturer's recommended setting.

(D) Any roof or cover drain that empties into the stored liquid must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(E) There must be no visible holes, tears, or other openings in any seal or seal fabric.

(F) For an external floating roof storage tank , secondary seals must be the rim-mounted type (the seal must be continuous from the floating roof to the tank wall). The accumulated area of gaps that exceed 1/8 inch in width between the secondary seal and storage tank wall may not be greater than 1.0 square inch per foot of tank diameter.

(3) Vapor control systems, as defined in §115.10 of this title, used as a control device on any storage tank must maintain a minimum control efficiency of 90%. If a flare is used, it must be designed and operated in accordance with 40 Code of Federal Regulations §60.18(b) - (f) (as amended through December 22, 2008 (73 FR 78209)) and be lit at all times when VOC vapors are routed to the flare.

(b) The following requirements apply in Gregg, Nueces, and Victoria Counties.

(1) No person shall place, store, or hold in any storage tank any VOC, unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table I(a) in subsection (a)(1) of this section for VOC other than crude oil and condensate or Table II(a) in subsection (a)(1) of this section for crude oil and condensate. If a flare is used as a vapor recovery system, as defined in §115.10 of this title, it must be designed and operated in accordance with 40 Code of Federal Regulations §60.18(b) - (f) (as amended through December 22, 2008 (73 FR 78209)) and be lit at all times when VOC vapors are routed to the flare.

(2) For an external floating roof or internal floating cover storage tank subject to the provisions of paragraph (1) of this subsection, the following requirements apply.

(A) All openings in an internal floating cover or external floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, must provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid must be in a closed (i.e., no visible gap) position at all times, except when the device is in actual use.

(B) Automatic bleeder vents (vacuum breaker vents) must be closed at all times except when the roof or cover is being floated off or landed on the roof or cover leg supports.

(C) Rim vents, if provided, must be set to open only when the roof or cover is being floated off the roof or cover leg supports or at the manufacturer's recommended setting.

(D) Any roof or cover drain that empties into the stored liquid must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(E) There must be no visible holes, tears, or other openings in any seal or seal fabric.

(F) For an external floating roof storage tank, secondary seals must be the rim-mounted type (the seal shall be continuous from the floating roof to the tank wall). The accumulated area of gaps that exceed 1/8 inch in width between the secondary seal and tank wall may not be greater than 1.0 square inch per foot of tank diameter.

(c) The following requirements apply in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties.

(1) No person may place, store, or hold in any storage tank any VOC, other than crude oil or condensate, unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table I(b) of this paragraph for VOC other than crude oil and condensate.

Figure: 30 TAC §115.112(c)(1)

Table I(b). Required Control for a Storage Tank Storing Volatile Organic Compounds (VOC) Other than Crude Oil and Condensate

True Vapor Pressure (pounds per square inch absolute (psia))	**Storage Capacity (gallon (gal))**	**Control Requirements**
≥ 1.5 psia and < 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe or Vapor control system
≥ 1.5 psia and < 11 psia	> 25,000 gal	Internal floating cover or external floating roof (any type) or Vapor control system
≥ 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe or Vapor control system
≥ 11 psia	> 25,000 gal	Submerged fill pipe and Vapor control system

(2) For an external floating roof or internal floating cover storage tank subject to the provisions of paragraph (1) of this subsection, the following requirements apply.

(A) There must be no visible holes, tears, or other openings in any seal or seal fabric.

(B) All tank gauging and sampling devices must be vapor-tight except when gauging and sampling is taking place.

(3) No person in Matagorda or San Patricio Counties shall place, store, or hold crude oil or condensate in any storage tank unless the storage tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is equipped with one of the following control devices, properly maintained and operated:

(A) an internal floating cover or external floating roof, as defined in §115.10 of this title. These control devices will not be allowed if the VOC has a true vapor pressure of 11.0 psia or greater. All tank-gauging and tank-sampling devices must be vapor-tight, except when gauging or sampling is taking place; or

(B) a vapor control system as defined in §115.10 of this title.

(d) The following requirements apply in the Houston-Galveston-Brazoria area, as defined in §115.10 of this title. The requirements in this subsection no longer apply beginning March 1, 2013.

(1) No person shall place, store, or hold in any storage tank any VOC unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in either Table I(a) of subsection (a)(1) of this section for VOC

other than crude oil and condensate or Table II(a) of subsection (a)(1) of this section for crude oil and condensate.

(2) For an external floating roof or internal floating cover storage tank subject to the provisions of paragraph (1) of this subsection, the following requirements apply.

(A) All openings in an internal floating cover or external floating roof as defined in §115.10 of this title except for automatic bleeder vents (vacuum breaker vents), and rim space vents must provide a projection below the liquid surface. All openings in an internal floating cover or external floating roof except for automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and roof or cover drains must be equipped with a deck cover. The deck cover must be equipped with a gasket in good operating condition between the cover and the deck. The deck cover must be closed (i.e., no gap of more than 1/8 inch) at all times, except when the cover must be open for access.

(B) Automatic bleeder vents (vacuum breaker vents) and rim space vents must be equipped with a gasketed lid, pallet, flapper, or other closure device and must be closed (i.e., no gap of more than 1/8 inch) at all times except when required to be open to relieve excess pressure or vacuum in accordance with the manufacturer's design.

(C) Each opening into the internal floating cover for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover.

(D) Any external floating roof drain that empties into the stored liquid must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or an equivalent control that must be kept in a closed (i.e., no gap of more than 1/8 inch) position at all times except when the drain is in actual use. Stub drains on an internal floating cover storage tank are not subject to this requirement.

(E) There must be no visible holes, tears, or other openings in any seal or seal fabric.

(F) For an external floating roof storage tank , secondary seals must be the rim-mounted type (the seal must be continuous from the floating roof to the tank wall with the exception of gaps that do not exceed the following specification). The accumulated area of gaps that exceed 1/8 inch in width between the secondary seal and storage tank wall may not be greater than 1.0 square inch per foot of storage tank diameter.

(G) Each opening for a slotted guidepole in an external floating roof storage tank must be equipped with one of the following control device configurations:

(i) a pole wiper and pole float that has a seal or wiper at or above the height of the pole wiper;

(ii) a pole wiper and a pole sleeve;

(iii) an internal sleeve emission control system;

(iv) a retrofit to a solid guidepole system;

(v) a flexible enclosure system; or

(vi) a cover on an external floating roof tank.

(H) The external floating roof or internal floating cover must be floating on the liquid surface at all times except as specified in this subparagraph. The external floating roof or internal floating cover may be supported by the leg supports or other support devices, such as hangers from the fixed roof, during the initial fill or refill after the storage tank has been cleaned or as allowed under the following circumstances:

(i) when necessary for maintenance or inspection;

(ii) when necessary for supporting a change in service to an incompatible liquid;

(iii) when the storage tank has a storage capacity less than 25,000 gallons or the vapor pressure of the material stored is less than 1.5 psia;

(iv) when the vapors are routed to a control device from the time the floating roof or cover is landed until the floating roof or cover is within ten percent by volume of being refloated;

(v) when all VOC emissions from the tank, including emissions from roof or cover landings, have been included in a floating roof or cover storage tank emissions limit or cap approved under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification); or

(vi) when all VOC emissions from floating roof or cover landings at the regulated entity, as defined in §101.1 of this title, are less than 25 tons per year.

(3) Vapor control systems, as defined in §115.10 of this title, used as a control device on any storage tank must maintain a minimum control efficiency of 90%.

(4) For a storage tank storing condensate, as defined in §101.1 of this title, prior to custody transfer, flashed gases must be routed to a vapor control system if the liquid throughput through an individual tank or the aggregate of tanks in a tank battery exceeds 1,500 barrels (63,000 gallons) per year.

(5) For a storage tank storing crude oil or condensate prior to custody transfer or at a pipeline breakout station, flashed gases must be routed to a vapor control system if the uncontrolled VOC emissions from an individual storage tank, or from the aggregate of storage tanks in a tank battery, equal or exceed 25 tons per year on a rolling 12-month basis. Uncontrolled emissions must be estimated by one of the following methods; however, if emissions determined using direct measurements or other methods approved by the executive director under subparagraphs (A) or (D) of this paragraph are higher than emissions estimated using the default factors or charts in subparagraphs (B) or (C) of this paragraph, the higher values must be used.

(A) The owner or operator may make direct measurements using the measuring instruments and methods specified in §115.117 of this title (relating to Approved Test Methods).

(B) The owner or operator may use a factor of 33.3 pounds of VOC per barrel (42 gallons) of condensate produced or 1.6 pounds of VOC per barrel (42 gallons) of oil produced.

(C) For crude oil storage only, the owner or operator may use the chart in Exhibit 2 of the United States Environmental Protection Agency publication *Lessons Learned from Natural Gas Star Partners: Installing Vapor Recovery Units on Crude Oil Storage Tanks*, October 2003, and assuming that the hydrocarbon vapors have a molecular weight of 34 pounds per pound mole and are 48% by weight VOC.

(D) Other test methods or computer simulations may be allowed if approved by the executive director.

(e) The control requirements in this subsection apply in the Houston-Galveston-Brazoria and Dallas-Fort Worth areas beginning March 1, 2013, except as specified in §115.119 of this title (relating to Compliance Schedules).

(1) No person shall place, store, or hold VOC in any storage tank unless the storage tank is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere or is in compliance with the control requirements specified in Table 1 of this paragraph for VOC other than crude oil and condensate or Table 2 of this paragraph for crude oil and condensate.

Figure: 30 TAC §115.112(e)(1)

Table 1: Required Control for a Storage Tank Storing Volatile Organic Compounds Other Than Crude Oil and Condensate

True Vapor Pressure (pounds per square inch absolute (psia))	**Storage Capacity (gallon (gal))**	**Control Requirements**
≥ 1.5 psia and < 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe, or Vapor control system
≥ 1.5 psia and < 11 psia	> 25,000 gal and ≤ 40,000 gal	Internal floating cover, or External floating roof (any type), or Vapor control system
≥ 1.5 psia and < 11 psia	> 40,000 gal	Internal floating cover, or External floating roof with primary seal (any type) and secondary seal, or Vapor control system
≥ 11 psia	> 1,000 gal and ≤ 25,000 gal	Submerged fill pipe, or Vapor control system
≥ 11 psia	> 25,000 gal	Submerged fill pipe and Vapor control system

Table 2: Required Control for a Storage Tank Storing Crude Oil and Condensate

True Vapor Pressure (pounds per square inch absolute (psia))	**Storage Capacity (gallon (gal))**	**Control Requirements**
≥ 1.5 psia and < 11 psia	> 1,000 gal and ≤ 40,000 gal	Submerged fill pipe, or Vapor control system
≥ 1.5 psia and < 11 psia	> 40,000 gal	Internal floating cover, or External floating roof with primary seal (any type) and secondary seal, or Vapor control system
≥ 11 psia	> 1,000 gal and ≤ 40,000 gal	Submerged fill pipe, or Vapor control system
≥ 11 psia	> 40,000 gal	Submerged fill pipe and Vapor control system

(2) For an external floating roof or internal floating cover storage tank subject to the provisions of paragraph (1) of this subsection, the following requirements apply.

(A) All openings in an internal floating cover or external floating roof must provide a projection below the liquid surface. Automatic bleeder vents (vacuum breaker vents) and rim space vents are not subject to this requirement.

(B) All openings in an internal floating cover or external floating roof must be equipped with a deck cover. The deck cover must be equipped with a gasket in good operating condition between the cover and the deck. The deck cover must be closed (i.e., no gap of more than 1/8 inch) at all times, except when the cover must be open for access. Automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and roof or cover drains are not subject to this requirement.

(C) Automatic bleeder vents (vacuum breaker vents) and rim space vents must be equipped with a gasketed lid, pallet, flapper, or other closure device and must be closed (i.e., no gap of more than 1/8 inch) at all times except when required to be open to relieve excess pressure or vacuum in accordance with the manufacturer's design.

(D) Each opening into the internal floating cover for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover.

(E) Any external floating roof drain that empties into the stored liquid must be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening or an equivalent control that must be kept in a closed (i.e., no gap of more than 1/8 inch) position at all times except when the drain is in actual use. Stub drains on an internal floating cover storage tank are not subject to this requirement.

(F) There must be no visible holes, tears, or other openings in any seal or seal fabric.

(G) For an external floating roof storage tank , secondary seals must be the rim-mounted type. The seal must be continuous from the floating roof to the tank wall with the exception of gaps that do not exceed the following specification. The accumulated area of gaps that exceed 1/8 inch in width between the secondary seal and storage tank wall may not be greater than 1.0 square inch per foot of storage tank diameter.

(H) Each opening for a slotted guidepole in an external floating roof storage tank must be equipped with one of the following control device configurations:

(i) a pole wiper and pole float that has a seal or wiper at or above the height of the pole wiper;

(ii) a pole wiper and a pole sleeve;

(iii) an internal sleeve emission control system;

(iv) a retrofit to a solid guidepole system;

(v) a flexible enclosure system; or

(vi) a cover on an external floating roof tank.

(I) The external floating roof or internal floating cover must be floating on the liquid surface at all times except as allowed under the following circumstances:

(i) during the initial fill or refill after the storage tank has been cleaned;

(ii) when necessary for preventive maintenance, roof or cover repair, primary seal inspection, or removal and installation of a secondary seal, if product is not transferred into or out of the storage tank, emissions are minimized, and the repair is completed within seven calendar days;

(iii) when necessary for supporting a change in service to an incompatible liquid;

(iv) when the storage tank has a storage capacity less than 25,000 gallons;

(v) when the vapors are routed to a control device from the time the storage tank has been emptied to the extent practical or the drain pump loses suction until the floating roof or cover is within 10% by volume of being refloated;

(vi) when all VOC emissions from the storage tank, including emissions from floating roof or cover landings, have been included in an emissions limit or cap approved under Chapter 116 of this title prior to March 1, 2013; or

(vii) when all VOC emissions from floating roof or cover landings at the regulated entity are less than 25 tons per year.

(3) A control device used to comply with this subsection must meet one of the following conditions at all times when VOC vapors are routed to the device.

(A) A control device, other than a vapor recovery unit or a flare, must maintain the following minimum control efficiency: (i) in the Houston-Galveston-Brazoria area, 90%; and

(ii) in the Dallas-Fort Worth area, 95%.

(B) A vapor recovery unit must be designed to process all vapor generated by the maximum liquid throughput of the storage tank or the aggregate of storage tanks in a tank battery and must transfer recovered vapors to a pipe or container that is vapor-tight, as defined in §115.10 of this title.

(C) A flare must be designed and operated in accordance with 40 Code of Federal Regulations §60.18(b) - (f) (as amended through December 22, 2008 (73 FR 78209)) and be lit at all times when VOC vapors are routed to the flare.

(4) For a storage tank storing condensate prior to custody transfer, flashed gases must be routed to a vapor control system if the condensate throughput of an individual tank or the aggregate of tanks in a tank battery exceeds:

(A) in the Houston-Galveston-Brazoria area, 1,500 barrels (63,000 gallons) per year on a rolling 12-month basis; and

(B) in the Dallas-Fort Worth area:

(i) 3,000 barrels (126,000 gallons) per year on a rolling 12-month basis; or

(ii) 15 months after the date the commission publishes notice in the *Texas Register* as specified in §115.119(b)(1)(C) of this title that the Dallas-Fort Worth area has been reclassified as a severe nonattainment area for t he 1997 Eight-Hour Ozone National Ambient Air Quality Standard, 1,500 barrels (63,000 gallons) per year on a rolling 12-month basis.

(5) For a storage tank storing crude oil or condensate prior to custody transfer or at a pipeline breakout station, flashed gases must be routed to a vapor control system if the uncontrolled VOC emissions from an individual storage tank, or from the aggregate of storage tanks in a tank battery, equal or exceed:

(A) in the Houston-Galveston-Brazoria area, 25 tons per year on a rolling 12-month basis; and

(B) in the Dallas-Fort Worth area:

(i) 50 tons per year on a rolling 12-month basis; or

(ii) 15 months after the date the commission publishes notice in the *Texas Register* as specified in §115.119(b)(1)(C) of this title that the Dallas-Fort Worth area has been reclassified as a severe nonattainment area for the 1997 Eight-Hour Ozone National Ambient Air Quality Standard, 25 tons per year on a rolling 12-month basis.

(6) Uncontrolled emissions from a storage tank or tank battery storing crude oil or condensate prior to custody transfer or at a pipeline breakout station must be estimated by one of the following methods. However , if emissions determined using direct measurements or other methods approved by the executive director under subparagraphs (A) or (B) of this paragraph are higher than emissions estimated using the default factors or charts in subparagraphs (C) or (D) of this paragraph, the higher values must be used.

(A) The owner or operator may make direct measurements using the measuring instruments and methods specified in §115.117 of this title.

(B) The owner or operator may use other test methods or computer simulations approved by the executive director.

(C) The owner or operator may use a factor of 33.3 pounds of VOC per barrel (42 gallons) of condensate produced or 1.6 pounds of VOC per barrel (42 gallons) of oil produced.

(D) For crude oil storage only, the owner or operator may use the chart in Exhibit 2 of the United States Environmental Protection Agency publication *Lessons Learned from Natural Gas Star Partners: Installing Vapor Recovery Units on Crude Oil Storage Tanks*, October 2003, and assuming that the hydrocarbon vapors have a molecular weight of 34 pounds per pound mole and are 48% by weight VOC.

§115.113. Alternate Control Requirements.

Alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division 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.

§115.114. Inspection Requirements.

(a) The following inspection requirements apply 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).

(1) For an internal floating cover storage tank , the internal floating cover and the primary seal or the secondary seal (if one is in service) must be visually inspected through a fixed roof inspection hatch at least once every 12 months.

(A) If the internal floating cover is not resting on the surface of the volatile organic compounds (VOC) inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating cover; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with Subchapter F, Division 3 of this chapter (relating to Degassing of Storage Tanks, Transport Vessels, and Marine Vessels).

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a

statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) For an external floating roof storage tank , the secondary seal gap must be physically measured at least once every 12 months to insure compliance with §115.112(a)(2)(F), (d)(2)(F), and (e)(2)(G) of this title (relating to Control Requirements).

(A) If the secondary seal gap exceeds the limitations specified by §115.112(a)(2)(F), (d)(2)(F), and (e)(2)(G) of this title, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with Subchapter F, Division 3 of this chapter

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(3) If the storage tank is equipped with a mechanical shoe or liquid-mounted primary seal, compliance with §115.112(a)(2)(F), (d)(2)(F), and (e)(2)(G) of this title can be determined by visual inspection.

(4) For an external floating roof storage tank , the secondary seal must be visually inspected at least once every six months to ensure compliance with §115.112(a)(2)(E) and (F), (d)(2)(E) and (F), and (e)(2)(F) and (G) of this title.

(A) If the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with Subchapter F, Division 3 of this chapter.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(b) The following inspection requirements apply in Gregg, Nueces, and Victoria Counties.

(1) For an internal floating cover storage tank, the following inspection requirements apply.

(A) If during an inspection of an internal floating cover storage tank, the internal floating cover is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating cover; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) For an external floating roof storage tank , the secondary seal gap must be physically measured at least once every 12 months to insure compliance with §115.112(b)(2)(F) of this title.

(A) If the secondary seal gap exceeds the limitations specified by §115.112(b)(2)(F) of this title, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(3) If the storage tank is equipped with a mechanical shoe or liquid-mounted primary seal, compliance with §115.112(b)(2)(F) of this title can be determined by visual inspection.

(4) For an external floating roof storage tank , the secondary seal must be visually inspected at least once every 12 months to insure compliance with §115.112(b)(2)(E) - (F) of this title.

(A) If the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the

storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(c) The following inspection requirements apply in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties.

(1) For an internal floating cover storage tank, the following inspection requirements apply.

(A) If during an inspection of an internal floating cover storage tank, the internal floating cover is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating cover; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) For an external floating roof storage tank, the following inspection requirements apply.

(A) If during an inspection of an external floating roof storage tank, the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank.

(B) If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution

control program with jurisdiction. Each request for an extension must include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

§115.115. Monitoring Requirements.

(a) The following monitoring requirements apply 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). An affected owner or operator shall install and maintain monitors to measure operational parameters of any of the following control devices installed to meet applicable control requirements. Such monitors must be sufficient to demonstrate proper functioning of those devices to design specifications.

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

(2) 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 volatile organic compounds (VOC) vapors routed to the device.

(3) For a carbon adsorption system or carbon adsorber, as defined in §101.1 of this title (relating to Definitions), the owner or operator shall:

(A) continuously monitor the exhaust gas VOC concentration of a carbon adsorption system that regenerates the carbon bed directly to determine breakthrough. For the purpose of this paragraph, breakthrough is defined as a measured VOC concentration exceeding 100 parts per million by volume above background expressed as methane. The owner or operator may conduct this monitoring using Method 21, as specified in §115.117 of this title (relating to Approved Test Methods), if the monitoring is conducted once every seven calendar days; or

(B) switch the vent gas flow to fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval determined by the maximum design flow rate and the VOC concentration in the gas stream vented to the carbon adsorption system or carbon adsorber.

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

(5) For a vapor recovery unit used to comply with §115.112(e)(3) of this title (relating to Control Requirements), the owner or operator shall continuously monitor at least one of the following operational parameters:

(A) run-time of the compressor or motor in a vapor recovery unit;

(B) total volume of recovered vapors; or

(C) other parameters sufficient to demonstrate proper functioning to design specifications.

(6) For a control device not listed in this subsection, the owner or operator shall continuously monitor one or more operational parameters sufficient to demonstrate proper functioning of the control device to design specifications.

(b) In Victoria County, the owner or operator shall monitor operational parameters of any of the emission control devices listed in this subsection installed to meet applicable control requirements.

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

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

(3) For a carbon adsorption system or carbon adsorber, the owner or operator shall continuously monitor the exhaust gas VOC concentration to determine if breakthrough has occurred. The owner or operator may conduct this monitoring using Method 21, as specified in §115.117 of this title, if the monitoring is conducted once every seven calendar days.

§115.116. Testing Requirements.

(a) The testing requirements in this subsection apply in the Dallas-Fort Worth, Houston-Galveston-Brazoria, Beaumont-Port Arthur, and El Paso areas, as defined in §115.10 of this title (relating to Definitions).

(1) For a vapor control system, other than a vapor recovery unit or a flare, used to comply with the control requirements in §115.112(a)(3) and (e)(3)(A) of this title (relating to Control Requirements), an initial control efficiency test must be conducted in accordance with the approved test methods in §115.117 of this title (relating to Approved Test Methods). If the vapor control system is modified in any way that could reasonably be expected to decrease the control efficiency, the device must be retested within 60 days of the modification.

(2) A flare used to comply with the control requirements in §115.112(a)(3) and (e)(3)(C) of this title must meet the design verification test requirements in 40 Code of Federal Regulations §60.18(f) (as amended through December 22, 2008 (73 FR 78209)).

(b) The testing requirements in this subsection apply in Gregg, Nueces, and Victoria Counties.

(1) For a vapor control system, other than a vapor recovery unit or a flare, compliance with the control requirements in §115.112(b) of this title must be demonstrated in accordance with the approved test methods in §115.117 of this title.

(2) A flare must meet the design verification test requirements in 40 Code of Federal Regulations §60.18(f) (as amended through December 22, 2008 (73 FR 78209)).

§115.117. 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) and Gregg, Nueces, and Victoria Counties, compliance with the requirements in this division must be determined by applying the following test methods, as appropriate:

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

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

(3) Method 21 (40 CFR Part 60, Appendix A-7) for determining volatile organic compounds concentrations for the purposes of determining the presence of leaks and determining breakthrough on a carbon adsorption system or carbon adsorber.

If the owner or operator chooses to conduct a test to verify a vapor-tight requirement, Method 21 is acceptable;

(4) Method 22 (40 CFR Part 60, Appendix A) for determination of visible emissions from flares;

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

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

(7) test method described in 40 CFR §60.113a(a)(1)(ii) (effective April 8, 1987) for measurement of storage tank seal gap;

(8) true vapor pressure must be determined using standard reference texts or 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. For the purposes of temperature correction, the owner or operator shall use the actual storage temperature. Actual storage temperature of an unheated storage tank may be determined using the maximum local monthly average ambient temperature as reported by the National Weather Service. Actual storage temperature of a heated storage tank

must be determined using either the measured temperature or the temperature set point of the storage tank;

(9) mass flow meter, positive displacement meter, or similar device for measuring the volumetric flow rate of flash, working, breathing, and standing emissions from crude oil and condensate over a 24-hour period representative of normal operation. For crude oil and natural gas production sites, volumetric flow rate measurements must be made while the producing wells are operational;

(10) test methods referenced in paragraphs (2), (5), and (6) of this section or Gas Processors Association Method 2286, Tentative Method of Extended Analysis for Natural Gas and Similar Mixtures by Temperature Programmed Gas Chromatography, to measure the concentration of volatile organic compounds in flashed gases from crude oil and condensate storage;

(11) 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; or

(12) minor modifications to these test methods approved by the executive director.

§115.118. Recordkeeping Requirements.

(a) The following recordkeeping requirements apply 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).

(1) The owner or operator of storage tank claiming an exemption in §115.111 of this title (relating to Exemptions) shall maintain records sufficient to demonstrate continuous compliance with the applicable exemption criteria. Where applicable, true vapor pressure, volatile organic compounds (VOC) content type, or a combination of the two must be recorded initially and at every change of service or when the storage tank is emptied and refilled.

(2) The owner or operator of an external floating roof storage tank that is exempt from the requirement for a secondary seal in accordance with §115.111(a)(1), (6), and (7) of this title and is used to store VOC with a true vapor pressure greater than 1.0 pounds per square inch absolute (psia) shall maintain records of the type of VOC stored and the average monthly true vapor pressure of the stored liquid.

(3) The owner or operator shall maintain records of the results of inspections required by §115.114(a) of this title (relating to Inspection Requirements). For secondary seal gaps that are required to be physically measured during inspection, these records must include a calculation of emissions for all secondary seal gaps that exceed 1/8 inch where the accumulated area of such gaps is greater than 1.0 square inch

per foot of tank diameter. These calculated emissions inventory reportable emissions must be reported in the annual emissions inventory submittal required by §101.10 of this title (relating to Emissions Inventory Requirements). The emissions must be calculated using the following equation.

Figure: 30 TAC §115.118(a)(3)

$$EI_{Reportable} = (E_{1Seal} - E_{2Seals}) \times \left(\frac{G_m - G_a}{G_a} \right) \times \left(\frac{G_{8thL}}{\pi D} \right) \times 90$$

Where:

$EI_{Reportable}$ = The calculated emissions inventory reportable emissions that must be reported in the annual emissions inventory submittal required by §101.10 of this title (relating to Emissions Inventory Requirements.

E_{1Seal} = The AP-42 estimate of emissions from a floating roof or floating cover tank with a primary seal only. The material is assumed to be stored at a temperature equal to the maximum of the local monthly average temperatures during the emission inventory reporting year as reported by the National Weather Service. Units are pounds per day.

E_{2Seals} = The AP-42 estimate of emissions from a floating roof or floating cover tank with primary and secondary seals. The material is assumed to be stored at a temperature

equal to the maximum of the local monthly average temperatures during the emission inventory reporting year as reported by the National Weather Service. Units are pounds per day.

G_m = The area of measured seal gaps greater than 1/8 inch wide. Units are square inches.

G_a = The area of allowable seal gaps greater than 1/8 inch wide, equal to one square inch per foot of tank diameter. Units are square inches.

G_{8thL} = The length of measured seal gaps greater than 1/8 inch wide. Units are linear feet.

D = The diameter of the storage tank. Units are feet.

90 = Constant. Units are days.

(4) The owner or operator shall maintain records of any operational parameter monitoring required in §115.115(a) of this title (relating to Monitoring Requirements) . Such records must be sufficient to demonstrate proper functioning of those devices to design specifications and must include, but are not limited to, the following.

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

(B) For a condensation system, the owner or operator shall continuously record 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.

(C) For a carbon adsorption system or carbon adsorber, the owner or operator shall:

(i) continuously record the exhaust gas VOC concentration of any carbon adsorption system monitored according to §115.115(a)(3)(A) of this title; or

(ii) record the date and time of each switch between carbon containers and the method of determining the carbon replacement interval if the carbon adsorption system or carbon adsorber is switched according to §115.115(a)(3)(B) of this title.

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

(E) For a vapor recovery unit, the owner or operator shall maintain records of the continuous operational parameter monitoring required in §115.115(a)(5) of this title.

(F) For any other control device not listed in this paragraph, the owner or operator shall maintain records of the continuous operational parameter monitoring required in §115.115(a)(6) of this title sufficient to demonstrate proper functioning of the control device to design specifications.

(5) The owner or operator shall maintain the results of any testing conducted in accordance with §115.116 of this title (relating to Testing Requirements) or §115.117 of this title (relating to Approved Test Methods) at an affected site. Results may be maintained at an off-site location if made available for review within 24 hours.

(6) In the Houston-Galveston-Brazoria and Dallas-Fort Worth areas, the owner or operator shall maintain the following additional records.

(A) The owner or operator of a fixed roof storage tank that is not required in §115.112(d)(1) or (e)(1) of this title (relating to Control Requirements) to be equipped with an external floating roof, internal floating cover, or vapor control system shall maintain records of the type of VOC stored, the starting and ending dates when the material is stored, and the true vapor pressure at the average monthly storage temperature of the stored liquid. This requirement does not apply to a storage tank with storage capacity of 25,000 gallons or less storing VOC other than crude oil or

condensate, or to a storage tank with storage capacity of 40,000 gallons or less storing crude oil or condensate.

(B) The owner or operator of any storage tank that stores crude oil or condensate prior to custody transfer or at a pipeline breakout station and is not equipped with a vapor control system shall maintain records of the estimated uncontrolled emissions from the storage tank on a rolling 12-month basis. The records must be made available for review within 72 hours upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency with jurisdiction.

(C) The owner or operator of an external floating roof or internal floating cover storage tank meeting the extended compliance date in §115.119(a)(1)(A) or (b)(1)(A) of this title (relating to Compliance Schedules) shall maintain records of the date of the last time the storage tank was emptied and degassed.

(7) All records must be maintained for two years and be made available for review upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency with jurisdiction. In the Dallas-Fort Worth area, any records created on or after March 1, 2011, must be maintained for at least five years.

(b) The following recordkeeping requirements apply in Gregg, Nueces, and Victoria Counties.

(1) The owner or operator of an external floating roof storage tank that is exempt from the requirement for a secondary seal in accordance with §115.111(b)(1), (6), and (7) of this title and used to store VOC with a true vapor pressure greater than 1.0 psia shall maintain records of the type of VOC stored and the average monthly true vapor pressure of the stored liquid.

(2) The owner or operator shall record the results of inspections required by §115.114(b) of this title.

(3) In Victoria County, the owner or operator shall continuously record operational parameters of any of the following emission control devices installed to meet applicable control requirements in §115.112 of this title. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature immediately downstream of a direct-flame incinerator;

(B) the inlet and outlet gas temperature of a condensation system or catalytic incinerator; and

(C) the exhaust gas VOC concentration of any carbon adsorption system or carbon adsorber, to determine if breakthrough has occurred.

(4) The owner or operator shall maintain records of the results of any testing conducted in accordance with §115.117 of this title at an affected site.

(5) All records must be maintained for two years and be made available for review upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency with jurisdiction.

§115.119. Compliance Schedules.

(a) In Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties, the compliance date has already passed and the owner or operator of each storage tank in which any volatile organic compounds (VOC) is placed, stored, or held shall continue to comply with this division except as follows.

(1) The affected owner or operator shall comply with the requirements of §§115.112(d); 115.115(a)(1), (2), (3)(A), and (4); 115.117, and 115.118(a) of this title (relating to Control Requirements; Monitoring Requirements; Approved Test Methods; and Recordkeeping Requirements, respectively) no later than January 1, 2009. Section 115.112(d) of this title no longer applies in the Houston-Galveston-Brazoria area beginning March 1, 2013. Prior to March 1, 2013, the owner or operator of a storage tank subject to §115.112(d) of this title shall continue to comply with §115.112(d) of this title

until compliance has been demonstrated with the requirements of §115.112(e) of this title.

(A) If compliance with these requirements would require emptying and degassing of the storage tank, compliance is not required until the next time the storage tank is emptied and degassed but no later than January 1, 2017.

(B) The owner or operator of each storage tank with a storage capacity less than 210,000 gallons storing crude oil and condensate prior to custody transfer shall comply with the requirements of this division no later than January 1, 2009, regardless if compliance with these requirements would require emptying and degassing of the storage tank.

(2) The affected owner or operator shall comply with §§115.112(e), 115.115(a)(3)(B), (5), and (6), and 115.116 of this title (relating to Testing Requirements) as soon as practicable, but no later than March 1, 2013.

(A) If compliance with these requirements would require emptying and degassing of the storage tank, compliance is not required until the next time the storage tank is emptied and degassed but no later than January 1, 2017.

(B) The owner or operator of each storage tank with a storage capacity less than 210,000 gallons storing crude oil and condensate prior to custody transfer shall comply with these requirements no later than March 1, 2013, regardless if

compliance with these requirements would require emptying and degassing of the storage tank.

(b) In Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties, the owner or operator of each storage tank in which any VOC is placed, stored, or held was required to be in compliance with this division on or before March 1, 2009, and shall continue to comply with this division, except as follows.

(1) The affected owner or operator shall comply with §§115.112(e), 115.115(a)(3)(B), (5), and (6), 115.116, and 115.118(a)(6) of this title as soon as practicable, but no later than March 1, 2013.

(A) If compliance with §115.112(e) of this title would require emptying and degassing of the storage tank, compliance is not required until the next time the storage tank is emptied and degassed but no later than December 1, 2021.

(B) The owner or operator of a storage tank with a storage capacity less than 210,000 gallons storing crude oil and condensate prior to custody transfer shall comply with these requirements no later than March 1, 2013, regardless if compliance with these requirements would require emptying and degassing of the storage tank.

(C) As soon as practicable but no later than 15 months after the commission publishes notice in the *Texas Register* that the Dallas-Fort Worth area has

been reclassified as a severe nonattainment area for the 1997 Eight-Hour Ozone National Ambient Air Quality Standard the owner or operator of a storage tank storing crude oil or condensate prior to custody transfer or at a pipeline breakout station is required to be in compliance with the control requirements in §115.112(e)(4)(B)(ii) and (5)(B)(ii) of this title except as specified in §115.111(a)(11) of this title (relating to Exemptions).

(2) The owner or operator is no longer required to comply with §115.112(a) of this title beginning March 1, 2013.

(c) In Hardin, Jefferson, and Orange Counties, the owner or operator of each storage tank in which any VOC is placed, stored, or held was required to be in compliance with this division by March 7, 1997, and shall continue to comply with this division, except that compliance with §115.115(a)(3)(B), (5), and (6), and §115.116 of this title is required as soon as practicable, but no later than March 1, 2013.

(d) In El Paso County, the owner or operator of each storage tank in which any VOC is placed, stored, or held was required to be in compliance with this division by January 1, 1996, and shall continue to comply with this division, except that compliance with §115.115(a)(3)(B), (5), and (6), and §115.116 of this title is required as soon as practicable, but no later than March 1, 2013.

(e) In Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties, the owner or operator of each storage tank in which any VOC is

placed, stored, or held was required to be in compliance with this division by July 31, 1993, and shall continue to comply with this division, except that compliance with §115.116(b) of this title is required as soon as practicable, but no later than March 1, 2013.

(f) The owner or operator of each storage tank in which any VOC is placed, stored, or held that becomes subject to this division on or after the date specified in subsections (a) - (e) of this section, shall comply with the requirements in this division no later than 60 days after becoming subject.