SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES
DIVISION 1: CUTBACK ASPHALT
§§115.510, 115.512, 115.513, 115.515 - 115.517, 115.519
Effective June 25, 2015

§115.510. Cutback Asphalt Definitions.

The following terms, when used in this division (relating to Cutback Asphalt), shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions for terms used in this division are found in §115.10 of this title (relating to Definitions), §101.1 of this title (relating to Definitions), and §3.2 of this title (relating to Definitions).

(1) Asphalt emulsion--An emulsion consisting of a continuous and discontinuous phase, composed principally of a semisolid or liquid asphaltic base, water, and an emulsifying agent.

(2) Conventional cutback asphalt--Any cutback asphalt which does not meet the definition of an exempt cutback asphalt.

(3) Cutback asphalt--Any asphaltic cement which has been liquified by blending with petroleum solvents (diluents).

(4) Exempt cutback asphalt--Any cutback asphalt which, when tested in accordance with American Society of Testing Materials Test Method D 402, "Distillation of Cutback Asphalt Products," as published in the 1997 edition of the Annual Book of ASTM Standards, shows the distillate fraction recovered up to 260 degrees Celsius (500 degrees Fahrenheit) to be less than 5.0% by volume of the total distillate recovered up to a temperature of 316 degrees Celsius (680 degrees Fahrenheit).

Adopted July 28, 1999 Effective August 18, 1999

§115.512. Control Requirements.

The following control requirements shall apply in Nueces, Bastrop, Caldwell, Hays, Travis, and Williamson Counties and the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions).

(1) The use of conventional cutback asphalt containing volatile organic compounds (VOC) solvents for the paving of roadways, driveways, or parking lots is restricted to no more than 7.0% of the total annual volume averaged over a two-year

period of asphalt used by or specified for use by any state, municipal, or county agency who uses or specifies the type of asphalt application.

(2) In the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas and in Bastrop, Caldwell, Hays, Travis, and Williamson Counties, no person shall allow the use, application, sale, or offering for sale of conventional cutback asphalt containing VOC solvents for paving roadways, driveways, or parking lots during the period from April 16 to September 15 of any year.

(3) When asphalt emulsion is used or produced, the maximum VOC content shall not exceed 12% by weight or the following limitations, whichever is more stringent:

(A) 0.5% by weight for seal coats;

(B) 3.0% by weight for chip seals when dusty or dirty aggregate is used;

(C) 8.0% by weight for mixing with open graded aggregate with less than 1.0% by weight of dust or clay-like materials adhering to the coarse aggregate fraction (1/4 inch in diameter or greater); and

(D) 12% by weight for mixing with dense graded aggregate when used to produce a mix designed to have 10% or less voids when fully compacted.

Adopted November 17, 2004 Effective December 9, 2004

§115.513. 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.

Adopted July 28, 1999 Effective August 18, 1999

§115.515. Testing Requirements.

Compliance with §115.510 and §115.512 of this title (relating to Cutback Asphalt Definitions; and Control Requirements) shall be determined by applying the following test methods, as appropriate:

(1) American Society of Testing and Materials (ASTM) Test Method D 244, "Standard Test Methods for Emulsified Asphalts, Sections 11 to 15, Residue and Oil Distillate by Distillation," as published in the 1997 edition of the Annual Book of ASTM Standards, for determining volatile organic compound (VOC) content of asphalt emulsions;

(2) ASTM Test Method D 402, "Standard Test Method for Distillation of Cut-Back Asphaltic Products," as published in the 1997 edition of the Annual Book of ASTM Standards, for determining the VOC content of cutback asphalt; or

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

Adopted July 28, 1999 Effective August 18, 1999

§115.516. Recordkeeping Requirements.

In Nueces, Bastrop, Caldwell, Hays, Travis, and Williamson Counties and the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, any state, municipal, or county agency who uses or specifies the use of cutback asphalt or asphalt emulsion shall maintain records sufficient to document compliance with applicable restrictions and shall make such records available upon request to representatives of the executive director, EPA, or the local air pollution control agency having jurisdiction in the area.

Adopted November 17, 2004 Effective December 9, 2004

§115.517. Exemptions.

For persons in Nueces, Bastrop, Caldwell, Hays, Travis, and Williamson Counties and the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston Areas, the following are exempt from the provisions of §115.512(2) of this title (relating to Control Requirements):

(1) asphalt concrete made with cutback asphalt, used for patching, which is stored in a long-life stockpile (longer than one-month storage); and

(2) cutback asphalt used solely as a penetrating prime coat.

Adopted November 17, 2004 Effective December 9, 2004

§115.519. Counties and Compliance Schedules.

(a) In Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Nueces, Orange, Tarrant, and Waller Counties, the compliance date has passed and all affected persons shall continue to comply with this division.

(b) All affected persons in Bastrop, Caldwell, Hays, Travis, and Williamson Counties shall comply with this division as soon as practicable, but no later than December 31, 2005.

(c) All affected persons in Ellis, Johnson, Kaufman, Parker, and Rockwall Counties shall comply with this division as soon as practicable, but no later than March 1, 2009.

(d) All affected persons in Wise County shall comply with this division as soon as practicable, but no later than January 1, 2017.

(e) Upon the date the commission publishes notice in the *Texas Register* that the Wise County nonattainment designated for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard is no longer legally effective, the owner or operator in Wise County is not required to comply with any of the requirements in this division.

Adopted June 3, 2015 Effective June 25, 2015

SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES
DIVISION 2: PHARMACEUTICAL MANUFACTURING FACILITIES
§§115.531 - 115.537, 115.539
Effective December 7, 2006

§115.531. Emission Specifications.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the owner or operator of a synthesized pharmaceutical manufacturing facility shall satisfy the following emission specifications:

(1) Reactors, distillation units, crystallizers, centrifuges, and vacuum dryers. The emission of volatile organic compounds (VOC) from these sources shall be controlled by means of surface condensers from which the condenser outlet gas temperature must not exceed the following.

Figure: 30 TAC §115.531(a)(1)

When VOC Vapor Pressure at 68°F (20°C) Exceeds	Outlet gas Maximum Temperature
5.8 psia (40 kPa)	-13°F (-25°C)
2.9 psia (20 kPa)	5°F (-15°C)
1.5 psia (10 kPa)	32°F (0°C)
1.0 psia (7 kPa)	50°F (10°C)
0.5 psia (3.5 kPa)	77°F (25°C)

(2) Air Dryers and Exhaust Systems. VOC emissions from all air dryers and production equipment exhaust systems shall be reduced to not more than 33 lbs/day (15 kg/day) or controlled in accordance with §115.532(a)(4) of this title (relating to Control Requirements).

(3) Loading Facilities. VOC emissions from truck or railcar deliveries to storage tanks at loading facilities shall be controlled in accordance with §115.532(a)(4) of this title.

(b) For Gregg, Nueces, and Victoria Counties, the owner or operator of a synthesized pharmaceutical manufacturing facility shall satisfy the following emission specifications:

(1) Reactors, distillation units, crystallizers, centrifuges, and vacuum dryers. The emission of VOC from these sources shall be controlled by means of surface condensers from which the condenser outlet gas temperature must not exceed the following.

Figure: 30 TAC §115.531(b)(1)

When VOC Vapor Pressure at 68°F (20°C) Exceeds	Outlet gas Maximum Temperature
5.8 psia (40 kPa)	-13°F (-25°C)
2.9 psia (20 kPa)	5°F (-15°C)
1.5 psia (10 kPa)	32°F (0°C)
1.0 psia (7 kPa)	50°F (10°C)
0.5 psia (3.5 kPa)	77°F (25°C)

(2) Air Dryers and Exhaust Systems. VOC emissions from all air dryers and production equipment exhaust systems shall be reduced to not more than 33 lbs/day (15 kg/day) or controlled in accordance with §115.532(b)(4) of this title.

(3) Loading Facilities. VOC emissions from truck or railcar deliveries to storage tanks at loading facilities shall be controlled in accordance with §115.532(b)(4) of this title.

Adopted May 8, 1992 Effective August 1, 1992

§115.532. Control Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of a synthesized pharmaceutical manufacturing facility shall provide the following specified controls.

(1) Tanks.

(A) All in-process tanks that contain volatile organic compounds (VOC) at any time shall be kept covered, except when production, sampling, maintenance, or inspection procedures require operator access.

(B) All storage tanks that store VOC shall have pressure vacuum conservation vents installed which are set at plus or minus 0.8 inches of water (plus or minus 0.2 kPa), unless a more effective control system is used.

(2) Centrifuges and filters. Centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface which process liquids containing VOC shall be enclosed.

(3) Leaks.

(A) All liquid leaks containing VOC from a process unit or storage tank shall be repaired the first time the equipment is off-line long enough to complete the repair.

(B) All liquid or gaseous leaks of VOC observed during loading operations shall be repaired immediately. Loading operations shall be discontinued until the leak is repaired.

(4) Air dryers, production equipment exhaust systems, and loading facilities. Sources affected by §115.531(a) of this title (relating to Emission Specifications) shall be controlled by a system with a reduction efficiency of at least 90% of the uncontrolled emissions.

(5) Pharmaceutical manufacturing facility. Any pharmaceutical manufacturing facility that becomes subject to the provisions of paragraphs (1) - (4) of this subsection by exceeding provisions of §115.537(a) of this title (relating to Exemptions) will remain subject to the provisions of this subsection, even if throughput or emissions later fall below exemption limits, unless and until emissions are reduced to no more than the controlled emissions level existing before implementation of the project by which throughput or emission rate was reduced to less than the applicable exemption limits in §115.537(a) of this title; and:

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or permit by rule required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permit for New Construction or Modification; and Permits by Rule). If a permit by rule is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that permit by rule; or

(B) if authorization by permit, permit amendment, standard permit, or permit by rule is not required for the project, the owner/operator has given the executive director 30 days' notice of the project in writing.

(b) For Gregg, Nueces, and Victoria Counties, the owner or operator of a synthesized pharmaceutical manufacturing facility shall provide the following specified controls.

(1) Tanks.

(A) All in-process tanks that contain VOC at any time shall be kept covered, except when production, sampling, maintenance, or inspection procedures require operator access.

(B) All storage tanks that store VOC shall have pressure vacuum conservation vents installed which are set at plus or minus 0.8 inches of water (plus or minus 0.2 kPa), unless a more effective control system is used.

(2) Centrifuges and filters. Centrifuges, rotary vacuum filters, and other filters having an exposed liquid surface which process liquids containing VOC shall be enclosed.

(3) Leaks.

(A) All liquid leaks containing VOC from a process unit or storage tank shall be repaired the first time the equipment is off-line long enough to complete the repair.

(B) All liquid or gaseous leaks of VOC observed during loading operations shall be repaired immediately. Loading operations shall be discontinued until the leak is repaired.

(4) Air dryers, production equipment exhaust systems, and loading facilities. Sources affected by §115.531(b) of this title shall be controlled by a system with a reduction efficiency of at least 90% of the uncontrolled emissions.

Adopted April 26, 2002 Effective May 16, 2002

§115.533. Alternate Control Requirements.

Alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division (relating to Pharmaceutical Manufacturing Facilities) 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.

Adopted April 26, 2002 Effective May 16, 2002

§115.534. Inspection Requirements.

(a) For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following inspection requirements shall apply.

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from the transfer of VOC from trucks or railcars to storage tanks at loading facilities shall be conducted by the owner or operator of any pharmaceutical manufacturing facility.

(2) VOC loading or unloading through the affected transfer lines shall be discontinued immediately when a leak is observed and shall not be resumed until the observed leak is repaired.

(b) For all affected persons in Gregg, Nueces, and Victoria Counties, the following inspection requirements shall apply:

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from the transfer of VOC from trucks or railcars to storage tanks at loading facilities shall be conducted by the owner or operator of any pharmaceutical manufacturing facility.

(2) VOC loading or unloading through the affected transfer lines shall be discontinued immediately when a leak is observed and shall not be resumed until the observed leak is repaired.

Adopted May 8, 1992 Effective August 1, 1992

§115.535. Testing Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with this division (relating to Pharmaceutical Manufacturing Facilities) shall be determined by applying the following test methods, as appropriate:

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

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

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

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

(5) determination of true vapor pressure using American Society of Testing and Materials (ASTM) Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989; or

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

(b) For Gregg, Nueces, and Victoria Counties, compliance with this division shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rate, as necessary;

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

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

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

(5) determination of true vapor pressure using ASTM Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989; or

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

§115.536. Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following recordkeeping requirements shall apply.

(1) The owner or operator of any pharmaceutical manufacturing facility which utilizes a surface condenser to control emissions of volatile organic compound (VOC) from process units affected by §115.531(a)(1) of this title (relating to Emission Specifications) shall install and maintain monitors to continuously measure and record the outlet gas temperature to ensure proper functioning in accordance with design specifications.

(2) The owner or operator of any pharmaceutical manufacturing facility which utilizes a vapor recovery system to satisfy the requirements of §115.531(a) of this title or §115.532(a) of this title (relating to Control Requirements) shall:

(A) install and maintain monitors to continuously measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications, including:

(i) the exhaust gas temperature of direct-flame incinerators and/or the gas temperature immediately upstream and downstream of any catalyst bed,

(ii) the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions), to determine if breakthrough has occurred,

(iii) the total amount of VOC recovered by carbon adsorption or other solvent recovery systems during a calendar month, or

(iv) the daily emission rate of VOC from the control device;

(B) maintain a record of the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) The owner or operator of any pharmaceutical manufacturing facility which is exempted from the requirements in accordance with the provisions of §115.537(a) of this title (relating to Exemptions) shall maintain a record of the following information, as appropriate:

(A) the vapor pressure of materials transferred at loading facilities, stored in tanks, or processed in centrifuges and filters; and

(B) the daily emissions rate of VOC.

(4) The owner or operator of any affected pharmaceutical manufacturing facility shall maintain records of any testing conducted at an affected facility in accordance with the provisions specified in §115.535(a) of this title (relating to Testing Requirements), and

(5) The owner or operator of any affected pharmaceutical manufacturing facility shall maintain all records at the affected facility for at least two years and make such records available upon request to representatives of the executive director, United States Environmental Protection Agency (EPA), or local air pollution control agency.

(b) For Gregg, Nueces, and Victoria Counties, the following recordkeeping requirements shall apply.

(1) The owner or operator of any pharmaceutical manufacturing facility which utilizes a surface condenser to control emissions of VOC from process units affected by §115.531(b)(1) of this title shall install and maintain monitors to continuously measure and record the outlet gas temperature to ensure proper functioning in accordance with design specifications.

(2) The owner or operator of any pharmaceutical manufacturing facility which utilizes a vapor recovery system to satisfy the requirements of §115.531(b) of this title or §115.532(b) of this title shall:

(A) install and maintain monitors to continuously measure and record operational parameters of all required control devices as necessary to ensure the proper functioning of those devices in accordance with design specifications, including:

(i) the exhaust gas temperature of direct-flame incinerators and/or the gas temperature immediately upstream and downstream of any catalyst bed,

(ii) in Victoria County, the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title, to deter-mine if breakthrough has occurred,

(iii) the total amount of VOC recovered by carbon adsorption or other solvent recovery systems during a calendar month, or

(iv) the daily emission rate of VOC from the control device;

(B) maintain a record of the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) The owner or operator of any pharmaceutical manufacturing facility which is exempted from the requirements in accordance with the provisions of §115.537(b) of this title shall maintain a record of the following information, as appropriate:

(A) the vapor pressure of materials transferred at loading facilities, stored in tanks, or processed in centrifuges and filters; and

(B) the daily emissions rate of VOC.

(4) The owner or operator of any affected pharmaceutical manufacturing facility shall maintain records of any testing conducted at an affected facility in accordance with the provisions specified in §115.535(b) of this title, and

(5) The owner or operator of any affected pharmaceutical manufacturing facility shall maintain all records at the affected facility for at least two years and make such records available upon request to representatives of the executive director, EPA, or local air pollution control agency.

Adopted April 30, 1997 Effective May 22, 1997

§115.537. Exemptions.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions shall apply:

(1) Storage tanks at loading facilities with capacities less than or equal to 2,000 gallons (7,571 liters) are exempt from the requirements of §115.531(a)(3) of this title (relating to Emission Specifications).

(2) Storage tanks at loading facilities that store volatile organic compounds (VOC) with vapor pressures less than or equal to 4.1 psia (28 kPa) at 68EF (20EC) are exempt from the requirements of §115.531(a)(3) of this title.

(3) Storage tanks containing VOC with vapor pressures less than or equal to 1.5 psia (10.3 kPa) at 68EF (20EC) are exempt from the requirements of §115.532(a)(1)(B) of this title (relating to Control Requirements).

(4) Centrifuges and filters which process liquids containing VOC with vapor pressures less than 0.5 psia (3.4 kPa) at 68EF (20EC) are exempt from the requirements of §115.532(a)(2) of this title.

(5) Any individual unit which, when uncontrolled, will emit a combined weight of VOC less than 15 lbs. (6.8 kg) in any continuous 24-hour period is exempt from the provisions of §115.531(a) and §115.532(a) of this title.

(b) For Gregg, Nueces, and Victoria Counties, the following exemptions shall apply:

(1) Storage tanks at loading facilities with capacities less than or equal to 2,000 gallons (7,571 liters) are exempt from the requirements of §115.531(b)(3) of this title.

(2) Storage tanks at loading facilities that store VOC with vapor pressures less than or equal to 4.1 psia (28 kPa) at 68EF (20EC) are exempt from the requirements of §115.531(b)(3) of this title.

(3) Storage tanks containing VOC with vapor pressures less than or equal to 1.5 psia (10.3 kPa) at 68EF (20EC) are exempt from the requirements of §115.532(b)(1)(B) of this title.

(4) Centrifuges and filters which process liquids containing VOC with vapor pressures less than 0.5 psia (3.4 kPa) at 68EF (20EC) are exempt from the requirements of §115.532(b)(2) of this title.

(5) Any facility which, when uncontrolled, will emit a combined weight of VOC less than 550 lbs. (249.5 kg) in any continuous 24-hour period is exempt from the provisions of §115.531(b) of this title and §115.532(b) of this title.

Adopted April 30, 1997 Effective May 22, 1997

§115.539. Counties and Compliance Schedules.

(a) All affected persons in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Montgomery, Nueces, Orange, Tarrant, Victoria, and Waller Counties shall continue to comply with this division (relating to Pharmaceutical Manufacturing Facilities) as required by §115.930 of this title (relating to Compliance Dates).

(b) All affected persons in Ellis, Johnson, Kaufman, Parker, and Rockwall Counties shall comply with this division as soon as practicable, but no later than March 1, 2009.

Adopted November 15, 2006 Effective December 7, 2006

SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES
DIVISION 3: DEGASSING OF STORAGE TANKS, TRANSPORT VESSELS, AND MARINE VESSELS
§§115.540 - 115.547, 115.549
Effective February 17, 2011

§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 compounds 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 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 sludge or rinsing liquid from a storage tank, transport vessel, or marine vessel.

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

(3) **Drain-dry floating roof tank**--A floating roof tank designed to completely drain its entire contents to a sump in a manner that leaves no free-standing liquid in the tank or the sump.

(4) **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 compounds 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.

(5) **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.

(6) **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.

(7) **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).

Adopted January 26, 2011 Effective February 17, 2011

§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 operations unless the VOC concentration, measured in accordance with the procedure described in §115.544(b)(3) of this title (relating to Inspection, Monitoring, and Testing Requirements), is less than 34,000 parts per million by volume (ppmv) expressed as methane or 50% of the lower explosive limit.

(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 operation.

(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:

(1) have all cargo tank closures properly secured or maintain a negative pressure within the vessel when a closure is opened; and

(2) 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 that is not a drain-dry floating roof storage tank must be routed to a control device as soon as practical but no later than:

(1) 24 hours after the tank has been emptied to the extent practical or the drain pump loses suction for a floating roof storage tank containing VOC liquids with a true vapor pressure greater than or equal to 1.5 pounds per square inch absolute (psia) under actual storage conditions;

(2) 72 hours after the tank has been emptied to the extent practical or the drain pump loses suction for a floating roof storage tank containing VOC liquids with a true vapor pressure less than 1.5 psia under actual storage conditions; or.

(3) the time limit specified in a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) up to a maximum of 72 hours after the tank has been emptied to the extent practical or the drain pump loses suction.

Adopted January 26, 2011 Effective February 17, 2011

§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) (as amended through December 22, 2008 (73 FR 78209)) 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 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 is less than 34,000 ppmv expressed as methane or less than 50% of the lower explosive limit. 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 operation, except as specified in §115.544(b)(4) of this title.

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

(d) When degassing is effected through the hatches or manways of a storage tank, all lines must be equipped with fittings that make vapor-tight connections .

(e) When degassing 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 equipment when it is removed from the hatch or to accomplish drainage before such removal.

(f) When degassing 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 equipment when it is removed from the hatch or to accomplish drainage before such removal.

Adopted January 26, 2011 Effective February 17, 2011

§115.543. Alternate Control Requirements.

For the owner or operator of a storage tank, transport vessel, or marine vessel subject to this division, 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.

Adopted January 26, 2011 Effective February 17, 2011

§115.544. Inspection, Monitoring, and Testing Requirements.

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

(1) Inspection for visible liquid leaks, visible fumes, or significant odors resulting from volatile organic compounds (VOC) transfer operations must be conducted during each degassing operation.

(2) Degassing 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.

(b) Monitoring requirements. The following monitoring requirements apply during the degassing 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) (as amended through October 17, 2000 (65 FR 62160)), 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 use one of the following methods to demonstrate compliance with the requirements in 40 CFR §60.18 (as amended through December 22, 2008 (73 FR 78209)).

(i) The owner or operator shall continuously monitor the net heating value of the gas stream routed to the flare.

(ii) The owner or operator shall continuously monitor the total volume of supplemental fuel added to the gas stream routed to the flare and continuously maintain sufficient supplemental fuel to meet the minimum net heating value requirements in 40 CFR §60.18 assuming that the net heating value contribution from the degassed VOC vapor is equivalent to a level corresponding to 50% of the lower explosive limit (LEL). The owner or operator may estimate the volumetric flow rate from the tank or vessel for the purpose of this calculation if the flow rate of the degassed VOC vapor is not directly monitored.

(iii) The owner or operator shall use calculations to demonstrate that for the material stored in the tank or vessel the net heating value of the gas stream 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).

(iv) If the flare is a non-assisted flare that qualifies for the provisions in 40 CFR §60.18(c)(3)(i), the owner or operator may elect to continuously monitor the hydrogen content of the gas stream routed to the flare and continuously meet the minimum 8.0% by volume hydrogen content requirement in lieu of the requirements in clauses (i) - (iii) of this subparagraph.

(F) For 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 within one hour after beginning the degassing operation. The VOC concentration measurement must be a one-hour test run using one of the following methods:

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

(G) For a thermal oxidizer or vapor combustor, 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 or vapor combustor 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 operation. A leak is defined as a screening concentration greater than 500 ppmv above background as methane for all components.

(I) For an internal combustion engine, the owner or operator shall continuously monitor the engine exhaust gas oxygen content throughout the degassing operation.

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

(3) The owner or operator shall monitor the VOC concentration to demonstrate compliance with the VOC concentration or percent LEL thresholds in §115.542(b) of this title and determine if the storage tank, transport vessel, or marine vessel can be vented to the atmosphere without control for the remainder of the degassing operation, except as specified in paragraph (4) of this subsection. The VOC concentration must be monitored:

(A) 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; or

(B) over a five-minute period using the integrated bag sampling procedure in Method 18 (40 CFR Part 60, Appendix A) §§8.2.1.1 - 8.2.1.4 and the integrated measurement 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 the 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. The VOC concentration measurement required by paragraph (3) of this subsection may be considered the first of these five consecutive measurements.

(i) If venting to the atmosphere without control has been suspended for more than four hours, the VOC concentration inside the tank or vessel must be measured upon restart of the degassing operation.

(ii) If any of the VOC concentration measurements equal or exceed 34,000 ppmv expressed as methane or 50% of the LEL, the tank or vessel must be routed to the control device until the VOC concentration is below 34,000 ppmv expressed as methane or less than 50% of the LEL as determined by subsection (b)(3) of this section.

(iii) If the measured VOC concentration is less than 6,800 ppmv expressed as methane or 10% of the LEL then no further VOC concentration measurements are required.

(B) The storage tank, transport vessel, or marine vessel can be vented to the atmosphere without control for the remainder of the degassing operation and no further VOC measurements are required if the VOC concentration inside the tank or vessel is less than 6,800 ppmv expressed as methane or 10% of the LEL 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.

(5) Minor modifications to the monitoring methods specified in this section may be approved by the executive director. Monitoring methods other than those specified in this section may be used if approved by the executive director and validated by 40 CFR Part 63, Appendix A, Method 301.

(6) The sampling location for monitoring the VOC concentration as required by subsection (b)(3) of this section should be immediately before the control device or in the transfer line connecting from the tank or vessel to the control device. The owner or operator may elect to monitor the VOC concentration at a location inside the vapor space of the tank or vessel provided the location is representative of the VOC concentration entering the control device.

(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 after any modification that could reasonably be expected to decrease the efficiency of a control device within 60 days after the modification or before being used to comply with the requirements in §115.542(a)(1) of this title, whichever is longer.

(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 or vapor combustor used to comply with the requirements in §115.542(a)(1) of this title, 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.

Adopted January 26, 2011 Effective February 17, 2011

§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 (O_2) concentration for making any O_2 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 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)(3) and (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 O_2 analyzer that is calibrated, maintained, and operated according to the manufacturer's instructions may be used to determine exhaust gas O_2 concentration for making any O_2 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 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, Third Edition, 1989. For the purposes of temperature correction, the owner or operator shall use 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)(3) and (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.

Adopted January 26, 2011 Effective February 17, 2011

§115.546. Recordkeeping and Notification Requirements.

(a) Recordkeeping requirements. The owner or operator of any volatile organic compounds (VOC) storage tank, transport vessel, or marine vessel subject to the requirements in this division shall maintain the following records on site 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 shall make these records 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.

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

(A) the type and number of storage tanks, transport vessels, and marine vessels that are degassed;

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

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

(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

(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 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 VOC concentration measurement required in §115.544(b)(2)(F) of this title and records of the monitoring method used.

(G) For a thermal oxidizer or vapor combustor, 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 or vapor combustor 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.

(I) For an internal combustion engine, the owner or operator shall maintain records of the continuous engine exhaust gas oxygen content monitoring required in §115.544(b)(2)(I) of this title.

(J) For a control device not listed in this paragraph, the owner or operator shall maintain records of the continuous operational parameter monitoring required in §115.544(b)(2)(J) of this title sufficient to demonstrate proper functioning of the control device to design specifications.

(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.

(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 operations.

Adopted January 26, 2011 Effective February 17, 2011

§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.

(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.

(4) Any 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.

(5) 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 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 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.

(6) Any oceangoing, self-propelled marine vessel is exempt from this division.

Adopted January 26, 2011 Effective February 17, 2011

§115.549. Compliance Schedules.

(a) All 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.

(b) 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. If the installation of additional monitoring equipment is necessary to comply with the requirements in §115.544(b)(2)(E) of this title (relating to Inspection, Monitoring, and Testing Requirements), the owner or operator shall comply with the requirements no later than March 1, 2012. Until the monitoring equipment necessary to demonstrate compliance with the requirements in §115.544(b)(2)(E) of this title is installed, the owner or operator shall demonstrate compliance by using engineering calculations or other available monitoring or testing data.

(c) All affected owners or operators 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 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, §172(c)(9).

(d) All affected owners or operators in Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties shall comply with the requirements in §§115.542(b), 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) as soon as practicable but no later January 1, 2009. If the installation of additional monitoring equipment is necessary to comply with the requirements in §115.544(b)(2)(E) of this title, the owner or operator shall comply with the requirements no later than March 1, 2012. Until the monitoring equipment necessary to demonstrate compliance with the requirements in §115.544(b)(2)(E) of this title is installed, the owner or operator shall demonstrate compliance by using engineering calculations or other available monitoring or testing data.

Adopted January 26, 2011 Effective February 17, 2011

SUBCHAPTER F: MISCELLANEOUS INDUSTRIAL SOURCES
DIVISION 4: PETROLEUM DRY CLEANING SYSTEMS
§§115.552, 115.553, 115.555 - 115.557, 115.559
Effective May 16, 2002

§115.552. Control Requirements.

(a) For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the owner or operator of any dry cleaning facility which uses petroleum-based solvents shall not operate the facility unless the following requirements are satisfied.

(1) Dryers. The owner or operator of a dry cleaning facility shall either:

(A) install, maintain, and operate a solvent-recovery dryer that recovers at least 85% by weight of the used petroleum solvent;

(B) install, maintain, and operate a petroleum dry-to-dry dryer that recovers at least 85% by weight of the used petroleum solvent; or

(C) route the exhaust air stream from the standard dryer to any other properly functioning control device which reduces the total emissions of volatile organic compounds (VOC) to the atmosphere by at least 85% by weight.

(2) Filtration systems. The owner or operator of a petroleum solvent filtration system shall either:

(A) install, maintain, and operate a cartridge filtration system according to the manufacturer's recommendations. The owner or operator shall drain all filter cartridges in their closed housings for at least eight hours before their removal; or

(B) maintain and operate a regenerative filter or any other filtration medium according to the manufacturers' recommendations. The owner or operator shall drain the filter medium in its closed housing for at least eight hours before its removal. Upon removal, the owner or operator shall directly place the filter medium in disposable vapor tight containers or bags and shall keep these containers or bags vapor tight at all times until they are properly landfilled.

(3) Fugitive emissions. The owner or operator shall ensure that:

(A) there are no visual, audible, or smellable leaks from any portion of the dry cleaning equipment. Visual inspection of all equipment and system components shall be conducted at least weekly;

(B) all washer and dryer traps, access doors, and other parts of the equipment where solvent may be exposed to the atmosphere are kept closed at all times except when required for proper operation or maintenance;

(C) all solvent-contaminated waste materials are stored in closed containers prior to proper disposal;

(D) repair of any visual, audible, or olfactory leak in any portion of the equipment shall be completed within three working days from the time the leak is detected. If necessary repair parts are not on hand, the owner or operator shall order the necessary parts within three working days and shall repair the leak no later than three working days after the parts arrive.

(b) Any petroleum solvent dry cleaning facility that becomes or is currently subject to the control requirements of subsection (a) of this section by exceeding the exemption limit of §115.157 of this title (relating to Exemptions) shall remain subject to the provisions of this section, even if its consumption of petroleum solvent later falls below the exemption level, unless and until its uncontrolled solvent consumption is reduced to no more than its solvent consumption level before lifting controls; and:

(1) the project by which solvent consumption was reduced is authorized by any permit or permit amendment or standard permit or permit by rule required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification; and Permits by Rule). If a permit by rule is available for the project, compliance with this subsection shall be maintained for 30 days after the filing of documentation of compliance with that permit by rule; or

(2) if authorization by permit, permit amendment, standard permit, or permit by rule is not required for the project, the owner/operator has given the executive director 30 days' notice of the project in writing.

Adopted April 26, 2002 Effective May 16, 2002

§115.553. Alternate Control Requirements.

For all affected persons in the Dallas/Fort Worth, El Paso, and Houston/Galveston 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 undesignated head

(relating to Petroleum Dry Cleaning Systems) 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.

Adopted April 30, 1997 Effective May 22, 1997

§115.555. Testing Methods and Procedures.

(a) To demonstrate initial compliance with the provisions of §115.552(a)(1)(A) of this title (relating to Control Requirements), the owner or operator of an affected facility shall perform an initial test to verify that the flow rate of recovered solvent from the recovery dryer is no greater than 1.7 fluid ounces per minute (50 milliliters per minute) at the termination of the recovery cycle. The test shall be conducted for the duration of one week during which no less than 50% of the dryer loads shall be monitored for their final recovered solvent flow rate. The location point for measuring the flow rate of recovered solvent shall be the outlet of the solvent-water separator. Near the end of the recovery cycle the entire flow of recovered solvent shall be diverted to a graduated cylinder. As the recovered solvent collects in the graduated cylinder the elapsed time is monitored and recorded in periods of greater than or equal to one minute. At the same time, the volume of solvent in the graduated cylinder is monitored and recorded to determine the volume of recovered solvent that is collected during each time period. The recovered solvent flow rate is calculated by dividing the volume of solvent collected per period by the length of time elapsed during the period and converting the results with appropriate factors into units of ounces or milliliters per minute. The recovery cycle and the monitoring procedure should continue until the flow rate of solvent is less than or equal to 1.7 fluid ounces per minute (50 milliliters per minute).

(b) To demonstrate initial compliance with the provisions of §115.552(a)(1)(C) of this title, the owner or operator of an affected facility shall apply the following test methods, as appropriate:

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

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

(3) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous non-methane organic emissions as carbon;

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

(5) one of the above test methods with minor modifications as approved by the Executive Director.

Adopted May 4, 1994 Effective May 27, 1994

§115.556. Recordkeeping Requirements.

(a) For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the owner or operator of any dry cleaning facility which uses petroleum-based solvent shall maintain records of monthly solvent consumption for at least two rolling years in a readily accessible location at the plant site. Solvent consumption of the previous consecutive 12 months shall be calculated monthly and used for determining if the exemption threshold in §115.557 of this title (relating to Exemptions) has been exceeded.

(b) For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title, the owner or operator of a dry cleaning facility subject to the requirements of §115.552 of this title (relating to Control Requirements) shall maintain:

(1) records of the performance test required under the provisions of §115.555(a) of this title (relating to Test Methods and Procedures) if the facility elects to comply with the control requirements of §115.552(a)(1)(A) of this title;

(2) documentation which demonstrates compliance with the provisions of §115.555(b) of this title if the facility elects to comply with the control requirements of §115.552(a)(1)(C) of this title.

Adopted May 4, 1994 Effective May 27, 1994

§115.557. Exemptions.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), any petroleum solvent dry cleaning facility that consumes less than 2,000 gallons of petroleum solvent per year is exempted from the requirements of §115.552(a)(1) of this title (relating to Control Requirements).

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§115.559. Counties and Compliance Schedules.

(a) All affected petroleum solvent dry cleaning facilities in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this division (relating to Petroleum

Dry Cleaning Systems) 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, §172(c)(9).

(b) All affected petroleum solvent dry cleaning facilities in El Paso County shall be in compliance with §§115.552, 115.553, and 115.555 - 115.557 of this title 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 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, §172(c)(9).

(c) All affected petroleum solvent dry cleaning facilities in Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall be in compliance with §§115.552, 115.553, and 115.555 - 115.557 of this title 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 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, §172(c)(9).

(d) Any petroleum solvent dry cleaning facility that becomes subject to the control requirements of §115.552(a)(1) of this title by exceeding the exemption threshold as identified in §115.557 of this title shall be in compliance as soon as practicable, but no later than two years from the time the exemption level was exceeded.

Adopted April 26, 2002 Effective May 27, 1994