

The Texas Natural Resource Conservation Commission (commission) adopts amendments to §115.10, concerning Definitions; §§115.211-115.217 and 115.219, concerning Loading and Unloading of Volatile Organic Compounds (VOC); §§115.221-115.227, and 115.229, concerning Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities; and §§115.234-115.237 and 115.239, concerning Control of VOC Leaks from Transport Vessels. Adopted with changes to the proposed text as published in the January 1, 1999 issue of the *Texas Register* (24 TexReg 61) are §§115.10, 115.211-115.217, 115.219, 115.221, 115.222, 115.224-115.227, 115.229, 115.234, 115.235, 115.237, and 115.239. Sections 115.223 and 115.236 are adopted without changes and will not be republished.

The commission adopts these revisions to Chapter 115, concerning Control of Air Pollution from VOCs, and to the State Implementation Plan (SIP) in order to reduce overall background levels of ground-level ozone in attainment, near-nonattainment, and ozone nonattainment areas.

The revisions are one element of the new Texas Clean Air Strategy (TCAS), which includes a variety of options in order to meet the National Ambient Air Quality Standards (NAAQS) for ground-level ozone. The purpose of the strategy is to reduce overall background levels of ozone in order to assist in keeping ozone attainment areas and near-nonattainment areas, such as Austin, Corpus Christi, Longview/Tyler/Marshall, San Antonio, and Victoria in compliance with the federal ozone standards. The new strategy is also necessary to help the Beaumont/Port Arthur, Dallas/Fort Worth, and Houston/Galveston ozone nonattainment areas move closer to ultimately reaching attainment with the ozone NAAQS. The TCAS takes into account recent science which shows that regional approaches

may provide improved control of air pollution. In particular, staff has conducted photochemical grid modeling which indicates that implementation of Stage I vapor recovery, cleaner burning gasoline, and national low-emitting vehicles (NLEV) will result in ozone reductions (peak eight-hour average) of one to four parts per billion (ppb) in much of east and central Texas. Additional modeling conducted specifically for the one-hour ozone standard has shown reductions of up to 3.6 ppb in east and central Texas. Additional details concerning the need for a regional strategy are as follows.

BACKGROUND

At the time the 1990 Federal Clean Air Act (FCAA) Amendments were enacted, the focus on controlling ozone pollution was centered on local controls. However, for many years an increasing number of air quality professionals have felt that ozone is a regional problem requiring regional strategies in addition to local control programs. As nonattainment areas across the United States prepared attainment demonstration SIPs in response to the 1990 FCAA Amendments, several areas found that modeling attainment was made much more difficult, if not impossible, because of high ozone and ozone precursor levels entering from the boundaries of their respective modeling domains, commonly called transport.

The commission has conducted air quality modeling and upper air monitoring that found regional air pollution should be considered when studying air quality in Texas' ozone nonattainment areas. This work is supported by research conducted by the Ozone Transport Assessment Group (OTAG), the most comprehensive attempt ever undertaken to understand and quantify the transport of ozone. Both the

commission and OTAG study results point to the need to take a regional approach, such as that proposed in the TCAS, to controlling air pollutants.

As part of the Coastal Oxidant Assessment for Southeast Texas (COAST) project, the commission and its contractor, Environ, Inc., conducted regional-scale modeling to develop future-year boundary conditions for the COAST modeling domain. The emissions inventory used in this modeling was based on the OTAG emission inventory and the modeling was conducted for a domain covering most of Texas as well as several southern states.

During the OTAG process, the commission's modeling staff ran several sensitivity analyses using this regional modeling setup to assess the impact of potential OTAG reductions on Texas. Applying the OTAG 5c reductions across the domain (60% reduction of point source oxides of nitrogen (NO_x), 30% reduction of low-level NO_x , 30% reduction of VOC), compared to the case of no reductions, indicated that modeled reductions would significantly reduce ozone throughout most of the eastern half of Texas. Overall, the modeling indicated that a regional reduction strategy would be beneficial across a wide area of the state.

During modeling for the Houston/Galveston attainment demonstration SIP for the one-hour ozone standard, the commission's modeling staff conducted sensitivity analyses to determine the benefits that regional reductions might have on Houston/Galveston, when applied simultaneously with local reductions. Unlike the commission's regional modeling exercises discussed in the previous paragraphs, these model runs offer an opportunity to assess separately the benefits of reductions made within and

outside a region, since model runs with and without the regional reductions scenarios in Houston/Galveston were conducted. Modeling runs were completed to evaluate the eight-hour average ozone concentrations in the COAST modeling domain for September 8, 1993 with 2007 projected emissions and assuming a 70% reduction of NO_x and a 15% reduction of VOC in the eight-county Houston/Galveston area. Even with the large reductions in Houston/Galveston, much of the upper Texas Coast is well above the eight-hour standard. Also, Austin, Victoria, and Corpus Christi show modeled eight-hour average concentrations above 85 ppb. The benefit of applying OTAG 5c reductions outside the Houston/Galveston eight-county area clearly showed that the reductions are beneficial to Houston/Galveston and provided additional ozone benefits of between five and ten ppb in Houston/Galveston.

Additional modeling has been completed by commission staff assessing the potential benefits of the TCAS. This modeling indicates that mobile source reductions (cleaner gasoline, NLEVs, and Stage I vapor recovery) have a potential to reduce peak eight-hour ozone averages of between one and four ppb in much of east and central Texas, with the greatest reductions seen in the Austin and San Antonio areas. Modeling completed since these rules were proposed further backs the effectiveness of these rules for reducing ozone. The latest modeling indicates one-hour and eight-hour ozone reductions in most of east and central Texas, with the most benefit seen in northeast Texas (Tyler/Longview) and central Texas (San Antonio and Austin). This modeling indicates significant reductions in some areas with lesser reductions in others. The main conclusion to be drawn from these models is that the appropriate controls have been selected for reducing ozone levels.

This modeling provides part of the evidence of the benefit of regional reductions on Texas' nonattainment areas and further provides justification that a regional strategy will help maintain air quality in near-nonattainment and attainment areas. Conclusions from the commission's work are supported by OTAG studies that also illustrate the importance of implementing a regional air quality control strategy.

The adopted rule revisions implement the Stage I vapor recovery option of the TCAS. The Stage I vapor recovery rules currently apply to approximately 7,000 gasoline stations in the Beaumont/Port Arthur, El Paso, Houston/Galveston, and Dallas/Fort Worth ozone nonattainment areas (Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties). These rules regulate the filling of gasoline storage tanks at gasoline stations by tank-trucks. To comply with Stage I requirements, a vapor balance system is typically used to capture the vapors from the gasoline storage tanks which would otherwise be displaced to the atmosphere as these tanks are filled with gasoline. The captured vapors are routed to the gasoline tank-truck, and the vapors are processed by a vapor control system when the tank-truck is subsequently refilled at a gasoline terminal or gasoline bulk plant. The adopted rules will reduce VOC emissions which are precursors to ground-level ozone formation, resulting in ground-level ozone reductions.

The effectiveness of Stage I vapor recovery rules depends on the captured vapors being: (1) effectively contained within the gasoline tank-truck during transit; and (2) controlled when the transport vessel is refilled at a gasoline terminal or gasoline bulk plant. Otherwise, the emissions captured at the gasoline

station will simply be emitted at a location other than the gasoline station, resulting in no reduction in VOC emissions despite the Stage I requirements.

Chapter 115 includes specific requirements for gasoline terminals in 16 ozone nonattainment counties (Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller). A gasoline terminal is a gasoline transfer facility, excluding marine terminals, with a gasoline throughput of at least 20,000 gallons per day, averaged over any consecutive 30-day period. Less restrictive Chapter 115 gasoline terminal rules apply in Gregg, Nueces, and Victoria Counties. Chapter 115 regulates gasoline terminals in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties under general VOC transfer rules.

On December 14, 1994, the United States Environmental Agency (EPA) promulgated Title 40 Code of Federal Regulations (CFR) 63, Subpart R, pursuant to §112(d) of the 1990 Amendments to the FCAA. Subpart R is the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Gasoline Distribution. Subpart R requires gasoline terminals nationwide to control emissions from the refilling of gasoline tank-trucks if emissions of hazardous air pollutants (HAPs) reach a threshold of ten tons per year of any one HAP or 25 tons per year of total HAPs.

Gasoline tank-trucks may also be refilled at a gasoline bulk plant, which is a gasoline transfer facility, excluding marine terminals, with a gasoline throughput less than 20,000 gallons per day, averaged over any consecutive 30-day period. Sections 115.211-115.219 require gasoline bulk plants in ozone nonattainment counties to control gasoline transfer emissions using a vapor balance (similar to that used

at gasoline stations meeting Stage I requirements). Outside of the ozone nonattainment counties, however, there is currently no Chapter 115 requirement for control of emissions from gasoline bulk plants. Likewise, there is no Chapter 115 requirement for control of emissions from gasoline tank-truck leaks outside of the ozone nonattainment counties.

The adopted rule changes extend the existing Chapter 115 Stage I vapor recovery, gasoline terminal, gasoline bulk plant, and gasoline tank-truck leak testing requirements (§§115.211-115.217, 115.221-115.227, and 115.234-115.237) to 95 counties in the eastern half of Texas. These counties are:

Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood.

Concurrently, the commission adopts revisions which reorganize and clarify the rules, including incorporation of a variety of rule interpretations made by the agency's Air Rule Interpretation Team (RIT). These clarifying/reorganizing revisions include, where possible, consolidation or elimination of redundant language or requirements, the use of the active (rather than passive) voice, and relocation of

rule language to more logical locations. In general, the commission's goal is to make the rules easier to read and more explicit concerning which requirements apply.

EXPLANATION OF ADOPTED RULES

The changes to §115.10, concerning Definitions, add a new definition of covered attainment counties which specifies the 95 counties to which Stage I, gasoline tank-truck testing, gasoline terminal, and gasoline bulk plant controls were extended; and add new definitions of flare, vapor combustor, and vapor control system. The definition of vapor control system is identical to the existing definition of vapor recovery system, and will facilitate a transition in the Chapter 115 rules to this term from the misleading term "vapor recovery system," which is defined to include both recovery and combustion control devices. The changes to §115.10 also delete the definitions of consumer-solvent products, municipal solid waste landfill emissions, and hand-held lawn and garden and utility equipment because these three definitions are no longer used in the Chapter 115 rules.

In addition, the changes to §115.10 delete the definitions of alcohol, alcohol substitutes, batch, cleaning solution, fountain solution, heatset, lithography, non-heatset, and offset lithography. These terms are used within the Chapter 115 offset printing rules (§§115.442, 115.443, 115.445, 115.446, and 115.449). In separate rulemaking, the commission recently adopted revisions which relocated the definitions of these terms to a new §115.440, concerning Offset Printing Definitions. (See the March 12, 1999 issue of the *Texas Register* (24 TexReg 1777)).

The changes to §115.10 also delete the definition of cutback asphalt. This term is used within the Chapter 115 cutback asphalt rules (§§115.512, 115.513, 115.515-115.517, and 115.519). In separate rulemaking, the commission is proposing to relocate the definition of this term to a new §115.510, concerning Cutback Asphalt Definitions. (See the April 23, 1999 issue of the *Texas Register* (24 TexReg 3178)).

Finally, the changes to §115.10 delete the following redundant definitions because these terms are already defined in 30 TAC §101.1, concerning Definitions, and are used in multiple chapters of the commission's rules: capture system, carbon adsorber, cold solvent cleaning, condensate, control device, control system, conveyORIZED degreasing, custody transfer, exempt solvent, gasoline, industrial solid waste, leak, liquid-mounted seal, marine vessel, mechanical shoe seal, motor vehicle fuel dispensing facility, municipal solid waste facility, municipal solid waste landfill, open-top vapor degreasing, process or processes, property, remote reservoir cold solvent cleaning, sludge, solid waste, source, submerged fill pipe, system or device, true vapor pressure, vapor-mounted seal, vent, and VOC water separator. Definitions which remain in §115.10 have been numbered in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998).

The changes to §115.211, concerning Emission Specifications, establish an emission limit for gasoline bulk plants in the covered attainment counties which is equivalent to the current emission limit for gasoline bulk plants in ozone nonattainment counties. Likewise, the changes also establish an emission limit for gasoline terminals in the covered attainment counties. A 1990 rule effectiveness study, in which the agency staff stack-tested all gasoline terminals in the Dallas/Fort Worth area (other than those

equipped with flares), found these gasoline terminals to be capable of meeting an emission limit of 10.8 milligram per liter (mg/l) of gasoline loaded. In order to gather more current data, the commission surveyed the test results for gasoline terminals in the covered attainment counties and the current ozone nonattainment counties and determined that the vast majority (94%) meet the 10.0 mg/l emission limit in 40 CFR 63, Subpart R (Gasoline Distribution NESHAP). The remaining 6.0% of the test results show compliance with a 20.0 mg/l emission limit. Consequently, the commission adopts a 20.0 mg/l emission limit for gasoline terminals in the covered attainment counties. Based on the test results, the commission believes that properly-maintained control devices at gasoline terminals can consistently meet the 20.0 mg/l emission limit. The commission solicited information regarding specific gasoline terminals in the covered attainment counties which cannot meet this emission limit when properly maintained, but none were identified. In addition, the revisions establish an expiration date for the less-stringent emission limit (80 mg/l) which currently applies to gasoline terminals in Gregg, Nueces, and Victoria Counties, and relocate the emission limit for gasoline terminals in these three counties from the existing §115.211(b) to the proposed §115.211(1)(B). The less stringent emission limit will expire upon the compliance date for the new limits. Finally, the revisions delete the emission limit of the existing §115.211(a)(3) for marine terminals in the Houston/Galveston ozone nonattainment area because this limit is already included in the existing §115.212(a)(8)(A).

The changes to §115.212, concerning Control Requirements, extend to the covered attainment counties the requirement that vapors from gasoline transfers at gasoline bulk plants be controlled rather than vented to the atmosphere. Likewise, the changes extend to the covered attainment counties the requirement that vapors from gasoline loading at gasoline terminals be controlled rather than vented to

the atmosphere. Also, the changes establish requirements designed to minimize emissions during gasoline transfer at gasoline terminals and gasoline bulk plants in the covered attainment counties. In addition, the changes also extend to the covered attainment counties the requirement that VOC vapors remaining in transport vessels after unloading be kept in vapor-tight transport vessels until the vapors are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation; and update references to definitions which previously were in §115.10 but are now included only in §101.1.

The changes to §115.212(a)(1) also add an option which allows general VOC (i.e., non-gasoline) loading to be controlled through pressurized loading. This will clarify the control requirements for loading of VOCs which are stored and transported under pressure, such as propane.

The changes to §115.212 further add an allowance for draining VOC from a liquid line after transfer into a portable container, which is then closed vapor-tight and disposed of properly. This was added to the existing §115.212(a)(3) and (4) and (b)(3) and (4). The changes to §115.212 also concurrently relocate the requirements of the existing §115.212(a)(4) and (b)(4) to the revised §115.212(a)(3)(E) and (b)(3)(E), respectively. The gasoline terminal loading lockout provision of existing §115.212(a)(9), which currently applies in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas, is relocated to the revised §115.212(a)(4)(C)-(E). This rule requires instrumentation which prevents gasoline transfer if the vapor line is not connected between the transport vessel and the terminal's vapor collection system, or if the control device malfunctions or is not operational. The purpose is to prevent uncontrolled gasoline loading at the loading rack. In addition, the changes to

§115.212 extend to the covered attainment counties and the Beaumont/Port Arthur ozone nonattainment area a requirement for instrumentation which prevents gasoline transfer if the gasoline terminal's control device malfunctions or is not operational.

Also, the changes to §115.212 consolidate the gasoline bulk plant loading and unloading requirements of existing §115.212(a)(6) and (7) into the revised §115.212(a)(5), and add an option for gasoline bulk plants to control emissions using a vapor control system rather than a vapor balance system between the storage tank and the storage vessel. The revisions delete the existing §115.212(a)(6)(B), which concerns permissible pressure-vacuum relief valve emissions from gasoline transfer at gasoline bulk plants during emergency situations, because upset conditions are already addressed in §101.6, Upset Reporting and Recordkeeping Requirements.

In addition, the changes to §115.212(b)(1), concerning general land-based VOC loading (i.e., non-gasoline, non-marine), require that at VOC loading operations in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties, the vapors from the transport vessel must be controlled by a vapor control system which maintains a control efficiency of at least 90%, a vapor balance system, or pressurized loading. Under the current §115.212(b)(1) and (c)(1), VOC emissions from loading operations in these nine counties must be controlled such that the aggregate true vapor pressure of all VOC does not exceed 1.5 psia. When the Texas Air Control Board (TACB) first adopted this requirement on April 10, 1973, the intent and expectation was that the 1.5 psia control level represented a 90% control efficiency, according to a TACB staff memo dated November 12, 1973. However, the use of an aggregate true vapor pressure as a surrogate control efficiency has

resulted in some confusion over the past 25 years. To eliminate this confusion, the rule revisions change the control efficiency to reflect the rule's original intent by using more commonly understood terminology. Most control devices can readily achieve and maintain a control efficiency of at least 90%. For example, flares which meet the standard design and operating criteria of 40 CFR 60.18(b) have been shown to operate with a control efficiency of at least 98%. However, some existing control devices, such as condensers, may be unable to consistently meet a 90% control level. The commission believes that the 90% overall control option for general land-based VOC loading, which is available in the proposed §115.213(c), will allow many general VOC loading operations in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties the flexibility to offset the increased emissions from existing lower-efficiency (less than 90%) control devices with reduced emissions from higher-efficiency (greater than 90%) control devices at the same account number. The commission solicited information regarding specific situations in these nine counties for which the 90% overall control option for general land-based VOC loading will not be a viable method for addressing existing lower-efficiency control devices. However, none were identified.

For marine terminals in the Houston/Galveston ozone nonattainment area, the changes to §115.212 also relocate the vapor balance option and the non-dedicated loading lines control requirement from the existing §115.217(a)(7)(C) and (D) to the revised §115.212(a)(6)(A) and (D), respectively. In addition, the revised §115.212(a)(6)(A) and (D) add an option which allows marine vessel loading to be controlled through pressurized loading. This will clarify the control requirements for loading of VOCs which are stored and transported under pressure, such as propane. Finally, the changes relocate the

annual marine vessel vapor-tightness test in the existing §115.212(a)(8)(B) to the revised §115.214(a)(3)(A).

The changes to §115.213, concerning Alternate Control Requirements, revise the term “section” (which should have been “undesignated head”) to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); extend the availability of alternate means of control to the entire covered attainment counties; and condense the three existing subsections into a single subsection. In addition, the changes relocate the 90% overall control options for marine terminals and general land-based VOC loading (i.e., non-gasoline, non-marine) in the existing §115.217(a)(6), (a)(8), (b)(4), and (c)(4) to the revised §115.213(b)-(d), with the addition of a requirement that loading of VOC with a vapor pressure of 11 psia or more must be controlled by either pressurized loading, a vapor control system, or a vapor balance system.

The changes to §115.214, concerning Inspection Requirements, establish inspection requirements for gasoline terminals and gasoline bulk plants in the covered attainment counties; require annual vapor-tightness testing of gasoline tank-truck tanks in the covered attainment counties; specify that the leak testing requirements apply to gasoline tank-truck tanks at both the loading and unloading points; specify that the leak testing requirements apply to general VOC (i.e., non-gasoline) tank-truck tanks at the loading point; and update references to definitions which previously were in §115.10 but are now included only in §101.1.

The changes to §115.214 also relocate the monthly gasoline terminal leak inspection requirement of the existing §115.214(a)(5), which currently applies in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas, to the revised §115.214(a)(2). The revisions extend this monthly gasoline terminal leak inspection requirement to the Beaumont/Port Arthur ozone nonattainment area and the covered attainment counties.

In addition, the changes to §115.214 relocate the annual marine vessel vapor-tightness testing requirements in the existing §115.212(a)(8)(B), which applies to marine terminals in the Houston/Galveston ozone nonattainment area, to the revised §115.214(a)(3)(A). The revised §115.214(a)(3)(D) (currently §115.214(a)(4)(C)) is updated to reference an additional vapor-tightness test available under 40 CFR 63.565(c). The inclusion of this second test method for determining marine vessel vapor-tightness will provide additional flexibility to the regulated community.

The revised §115.214(a)(1)(D), (a)(3)(G), and (b)(1)(D) add exclusions from the leak inspection requirements for fumes from hatches or vents resulting from VOC transfer for which control of the transfer emissions is not required. The revised §115.214(b)(1)(C) adds a requirement to gasoline terminals and gasoline bulk plants in the covered attainment counties that gasoline tank-truck tanks pass an annual leak-tightness test.

The changes to §115.215, concerning Approved Test Methods, extend the existing test methods to the covered attainment counties and consolidate the existing §115.215(a) and (b) into a single subsection. Because it is not reasonably possible to measure the mass emission rate from an elevated flare (an

elevated flare's flame is open to the atmosphere, such that the emissions cannot be routed through a stack), the test methods for flow rate and VOC concentration in §115.215(1) and (2) do not apply to flares. In order to specify performance requirements for flares, the revised §115.215(3) establishes the test requirements of 40 CFR 60.18(b). Because flares can not be stack-tested, the revised §115.215(3) also specifies that compliance with the requirements of 40 CFR 60.18(b) represents compliance with the emission specifications of §115.211 and the control efficiency requirements of §115.212. The revisions to §115.215 also add a new paragraph (10), which authorizes the use of test methods other than those specifically listed in §115.215, provided that any new test method is validated using the procedures in 40 CFR 63, Appendix A, Test Method 301, with the executive director acting as the administrator. This revision is necessary because in some specific unique situations, the listed test methods may be inappropriate. The new paragraph (10) increases flexibility by allowing the use of additional test methods which may be more cost-effective and more appropriate in certain unique situations.

The changes to §115.216, concerning Monitoring and Recordkeeping Requirements, extend the recordkeeping requirements to gasoline terminals and gasoline bulk plants in the covered attainment counties; update references to definitions which previously were in §115.10 but are now being included only in §101.1; revise a reference to the EPA for consistency with the commission's style guidelines; consolidate the existing §115.216(a) and (b) into a single subsection; specify that flares must meet the requirements of 40 CFR 60.18(b) and 30 TAC Chapter 111; and state that records of appropriate operating parameters must be kept for types of vapor control systems not specifically listed in §115.216(1)(A) and (B). The revised §115.216(1)(A)(iv) and (1)(B) specify exhaust gas temperature monitoring of vapor combustors, with an option that the owner/operator of a vapor combustor may

consider it to be a flare and monitor the unit under the flare requirements specified in 40 CFR 60.18(b) and Chapter 111. These revisions are necessary to ensure that control devices are functioning properly, and to clarify how vapor combustors are to be monitored. Based upon information from the agency's New Source Review Permits Division, most existing flares at gasoline terminals and land-based general VOC (non-gasoline) loading facilities meet the design and operating criteria of 40 CFR 60.18(b). The commission solicited information regarding flares that do not meet the requirements of 40 CFR 60.18(b). However, none were identified. The commission deleted the proposed change to §115.216 which would have added a requirement that records must include information on how the design standard or operation of equipment meets the emission specifications and control requirements. The commission believes a more thorough analysis of the impacts on the regulated community is needed.

The revisions to the existing §115.216(a)(3)-(5), (b)(3), and (b)(5), which specify the daily recordkeeping for land-based VOC transfer operations, consolidate and relocate these requirements to the revised §115.216(3), with the only records required being those which are necessary to establish compliance with, or exemption from, the rule requirements. The existing §115.216(a)(1) and (b)(1), which require a daily record of the total quantity of VOC loaded at the plant, are being consolidated and relocated to the revised §115.216(3)(D), and the applicability reduced. Specifically, this record of daily VOC loaded will only be required when needed to establish the exemption eligibility of loading operations and gasoline bulk plants below the 20,000 and 4,000 gallons per day thresholds, respectively. Similarly, for general VOC (non-gasoline) transfer operations in which all VOC handled has a low vapor pressure, the revised §115.216(3)(C) will allow these operations to simply keep records of the type and vapor pressure of each VOC transferred, and any appropriate test results.

Previously, §115.216 did not include specific recordkeeping requirements for land-based VOC transfer operations in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties. The revisions to §115.216 add recordkeeping requirements for land-based general VOC (i.e., non-gasoline) transfer operations in these counties which are sufficient to document compliance with the control requirements, inspection requirements, and exemptions.

The existing §115.216(a)(2)(D) and (b)(2)(D), which concern records associated with control device maintenance activities, are being deleted because maintenance activities are already addressed in 30 TAC §101.7, Maintenance, Start-up and Shutdown Reporting, Recordkeeping, and Operational Requirements.

The changes to §115.217, concerning Exemptions, establish an exemption for small (less than 4,000 gallons per day) gasoline bulk plants in the covered attainment counties; update references to definitions which previously were in §115.10 but are now being included only in §101.1; revise the term “undesigned head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); and consolidate the existing §115.217(b) and (c) into a single subsection.

In addition, the revisions to §115.217 relocate the 90% overall control options for marine terminals and general land-based VOC loading (i.e., non-gasoline, non-marine) in the existing §115.217(a)(6), (a)(8), (b)(4), and (c)(4) to the revised §115.213(b)-(d). The revisions also relocate the marine vessel exemptions in the existing §115.217(a)(4) and (7) to the revised §115.217(a)(5), and add §115.217(a)(5)(A)(ii) to clarify that transfer of VOC from one marine vessel to another marine vessel

("lightering") is exempt, as long as the VOC transfer does not use loading arm(s), pump(s), meter(s), valve(s), or piping that are part of a marine terminal. Any lightering which uses a marine terminal's loading arm(s), pump(s), meter(s), valve(s), or piping is treated as though the VOC was loaded directly from the marine terminal into the marine vessel, and is required to be controlled the same as any other marine vessel loading which occurs at the terminal.

Further, the changes to §115.217 revise the existing exemptions for low vapor pressure VOC loading, low throughput of land-based VOC loading, crude oil, condensate, liquefied petroleum gas (LPG), and small gasoline bulk plants to make clear which requirements these operations must meet. In the existing §115.217(a)(1)-(3), (b)(1)-(3), and (c)(1)-(3), low vapor pressure VOC loading, low throughput of land-based VOC loaded, and LPG are exempt from the requirements of §115.212 only. Similarly, the existing §115.217(b)(3) and (c)(3) exempt the transfer of crude oil and condensate in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis and Victoria Counties from the requirements of §115.212 only. The revisions specify that after unloading, the transport vessel must be kept vapor-tight until the vapors in the transport vessel are returned to a loading, cleaning, or degassing operation and are discharged in accordance with the control requirements of that operation.

The revisions broaden the existing exemptions for crude oil and condensate (applicable only in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis and Victoria Counties), LPG, low vapor pressure VOC loading, low throughput of land-based VOC loading, and small gasoline bulk plants to exempt most inspection, testing, and recordkeeping requirements. However, these operations will continue to be required to conduct inspections for visible liquid leaks, cease VOC transfer when a

liquid leak is observed, and repair the leak before transferring additional VOC. General land-based (i.e., non-gasoline) transfer of low vapor pressure VOC and small general land-based VOC loading plants which handle both exempt and non-exempt VOC will be required to maintain records of test results (e.g., vapor pressure testing) and the vapor pressure and type of each VOC transferred (excluding gasoline). As noted previously, under the revised §115.216(3)(D), the requirement of the current §115.216(a)(1) and (b)(1) to maintain records of total VOC loaded will continue to apply to low throughput gasoline bulk plants and low throughput general VOC loading operations. The revisions to §115.217(b) also relocate the existing exemption for loading and unloading of marine vessels in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis and Victoria Counties to a new paragraph (6), and clarify that this exemption applies to all of the covered attainment counties.

The changes to §115.219, concerning Counties and Compliance Schedules, specify the compliance schedule for the new requirements; delete language which is obsolete due to the passing of a November 15, 1996 compliance date; and revise references to the Texas Natural Resource Conservation Commission (TNRCC) and the EPA for consistency with the commission's style guidelines.

The changes to §115.221, concerning Emission Specifications, add an emission limit for filling of gasoline storage tanks at motor vehicle fuel dispensing facilities in the covered attainment counties; and change a reference from "vapor recovery system" to "vapor control system" for clarification. This emission limit is the same one already required in ozone nonattainment counties.

The changes to §115.222, concerning Control Requirements, extend to the covered attainment counties the requirements designed to minimize emissions during these gasoline transfer operations, as well as the requirement that filling of gasoline storage tanks at motor vehicle fuel dispensing facilities be controlled through a vapor balance system rather than vented to the atmosphere. The changes to §115.222 also require non-coaxial Stage I connections for the installation of new storage tanks or modification of existing storage tanks in the covered attainment counties after December 22, 1998. In addition, the changes to §115.222 extend to the covered attainment counties the requirement that VOC vapors remaining in tank-truck tanks after unloading be kept in vapor-tight tank-truck tanks until the vapors are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation. Finally, the changes to §115.222 update references to definitions which previously were in §115.10 but are now being included only in §101.1, and delete language which became obsolete upon the passing of the final Stage II compliance deadline on December 22, 1998.

The changes to §115.223, concerning Alternate Control Requirements, revise the term “undesigned head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); and establish the availability of alternate means of control in the covered attainment counties.

The changes to §115.224, concerning Inspection Requirements, extend to the covered attainment counties the inspection requirements for gasoline transfers at motor vehicle fuel dispensing facilities and the annual vapor-tightness testing requirement for gasoline tank-truck tanks; revise the term

“undesignated head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); and update the title of the division for consistency with a previous name change.

The changes to §115.225, concerning Approved Test Methods, extend the existing test methods to the covered attainment counties.

The changes to §115.226, concerning Recordkeeping Requirements, establish recordkeeping requirements for motor vehicle fuel dispensing facilities in the covered attainment counties; add recordkeeping requirements for exempt facilities in the covered attainment counties to ensure compliance with the gasoline tank-truck leak testing requirements; and correct the title of a division.

The changes to §115.227, concerning Exemptions, establish exemptions for gasoline storage tanks in the covered attainment counties; add an exemption from gasoline throughput recordkeeping for small gasoline storage tanks (no more than 1,000 gallons capacity); clarify that the requirements are applicable to motor vehicle fuel dispensing facilities; revise the term “undesignated head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); and correct the title of a division. The revised rules include an exemption for gasoline stations in the covered attainment counties with a gasoline throughput less than 125,000 gallons per month.

The changes to §115.229, concerning Counties and Compliance Schedules, specify the compliance schedules for the new requirements in the covered attainment counties; revise the term “undesignated head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998);

and correct the title of a division. The changes to §115.229 specify that larger gasoline stations (those with a gasoline throughput of at least 125,000 gallons per month) are required to comply by April 30, 2000. The changes also specify that the intent of the phrase "as soon as practicable, but no later than..." in §115.229(d) is that before this compliance date, gasoline stations which are equipped for Stage I vapor recovery must utilize Stage I for each gasoline delivery by a gasoline tank-truck which is likewise equipped for Stage I vapor recovery. The commission solicited comments regarding possible city, county, or state incentives to encourage early implementation of the Stage I requirements. However, no comments regarding possible incentives were received.

The changes to §115.234, concerning Inspection Requirements, establish annual vapor-tightness testing requirements for gasoline tank-truck tanks in the covered attainment counties; specify that the leak testing requirements apply to gasoline tank-truck tanks at both the loading and unloading points; specify that the leak testing requirements apply to general VOC (i.e., non-gasoline) tank-truck tanks at the loading point; and revise the term "undesignated head" to "division" in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998).

The changes to §115.235, concerning Approved Test Methods, specify the testing requirements and approved test methods for gasoline tank-truck tanks in the covered attainment counties; specify that the leak testing requirements apply to gasoline tank-truck tanks at both the loading and unloading points; specify that the leak testing requirements apply to general VOC (i.e., non-gasoline) tank-truck tanks at the loading point; and clarify that the alternative testing option of the existing §115.235(4) applies to

general VOC (i.e., non-gasoline) tank-truck tanks at the loading point; and more specifically references the leakage test method of 49 CFR 180.407(h).

The changes to §115.236, concerning Recordkeeping Requirements, add recordkeeping requirements for gasoline tank-truck leak testing in the covered attainment counties; clarify that records of leakage tests conducted under 49 CFR 180.407(h) should be kept as specified in 49 CFR 180.417 instead of Method 27 records; revise the term “undesigned head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998); and revise references to the TNRCC and the EPA for consistency with the commission’s style guidelines.

The changes to §115.237, concerning Exemptions, add an exemption in the covered attainment counties for transport vessels other than tank-trucks (e.g., railcars); add an exemption for portable tanks, as defined in 49 CFR 171.8; delete language which is obsolete due to the passing of a May 31, 1995 compliance date; and revise the term “undesigned head” to “division” in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998).

The changes to §115.239, concerning Counties and Compliance Schedules, specify an April 30, 2000 compliance date for the gasoline tank-truck leak testing in the covered attainment counties; and delete language which is obsolete due to the passing of January 31, 1994 and May 31, 1995 compliance dates. The changes also specify that the intent of the phrase "as soon as practicable, but no later than..." in §115.239(b) is that before the applicable compliance date, gasoline tank-trucks which are equipped for

Stage I vapor recovery must utilize Stage I for each gasoline delivery at a gasoline station which is likewise equipped for Stage I vapor recovery.

FINAL REGULATORY IMPACT ANALYSIS

The commission has reviewed the rulemaking in light of the regulatory analysis requirements of Texas Government Code (the Code), §2001.0225, and has determined that the rulemaking is not subject to §2001.0225 because although it meets the definition of a “major environmental rule” as defined in the Code, it does not meet any of the four applicability requirements listed in §2001.0225(a). Specifically, the emission limitations and control requirements within this rulemaking were developed in order to meet the NAAQS for ozone set by the EPA under §109 of the FCAA. States are primarily responsible for ensuring attainment and maintenance of NAAQS once the EPA has established them. Under §110 of the FCAA and related provisions, states must submit, for approval by the EPA, SIPs that provide for the attainment and maintenance of NAAQS through control programs directed to sources of the pollutants involved. This rulemaking is not an express requirement of state law, but was developed specifically in order to meet the air quality standards established under federal law as NAAQS. Specifically, this rulemaking is intended to help bring ozone nonattainment areas into compliance, and help keep attainment and near-nonattainment areas from going into nonattainment. There is no contract or delegation agreement that covers the topic that is the subject of this rulemaking. Therefore, this rulemaking does not involve an agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program, and was not developed solely under the general powers of the agency. No comments were received during the comment period regarding the draft regulatory impact analysis.

TAKINGS IMPACT ASSESSMENT

The commission has prepared a takings impact assessment for these rules pursuant to Texas Government Code, §2007.043. The following is a summary of that assessment. The specific purpose of the rulemaking is to extend to 95 counties in the eastern half of Texas the Chapter 115 rules for Stage I vapor recovery, gasoline terminals, gasoline bulk plants, and gasoline tank-truck leak testing which currently apply in the Beaumont/Port Arthur, El Paso, Houston/Galveston, and Dallas/Fort Worth ozone nonattainment areas. This rulemaking is part of the new TCAS which includes a variety of options to control ground-level ozone. The purpose is to help keep ozone attainment and near-nonattainment areas, such as Austin, Corpus Christi, Longview/Tyler/Marshall, and San Antonio, in compliance with the federal ozone standard, and to help the Beaumont/Port Arthur, Dallas/Fort Worth, and Houston/Galveston ozone nonattainment areas reach attainment. Promulgation and enforcement of the rule amendments may possibly burden private real property because this rulemaking action requires the installation of Stage I vapor recovery systems at gasoline stations, which includes the permanent installation of subsurface piping. In addition, this rulemaking action requires the installation of a vapor balance system at gasoline bulk plants, which also requires the permanent installation of piping. Finally, this rulemaking action requires the permanent installation of a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate the continuous presence of a flame. Although the rule revisions do not directly prevent a nuisance, prevent an immediate threat to life or property, or prevent a real and substantial threat to public health and safety, the rule revisions fulfill a federal mandate under §110 of the 1990 Amendments to the FCAA. Specifically, the emission limitations and control requirements within this rulemaking were developed in order to meet the NAAQS for ozone set by the EPA under §109 of the FCAA. States are primarily responsible for

ensuring attainment and maintenance of NAAQS once the EPA has established them. Under §110 of the FCAA and related provisions, states must submit, for approval by the EPA, SIPs that provide for the attainment and maintenance of NAAQS through control programs directed to sources of the pollutants involved. Therefore, the purpose of the rulemaking is to meet the air quality standards established under federal law as NAAQS. Consequently, the following exemption applies to these rules: an action reasonably taken to fulfill an obligation mandated by federal law.

COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW

The commission has determined that this rulemaking action is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), the rules of the Coastal Coordination Council (31 TAC Chapters 501-506), and the commission's rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Texas Coastal Management Program. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3) relating to actions and rules subject to the CMP, agency rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has reviewed this action for consistency, and has determined that this rulemaking is consistent with the applicable CMP goals and policies. The primary CMP policy applicable to this rulemaking action is the policy that commission rules comply with regulations at 40 CFR, to protect and enhance air quality in the coastal area. No new sources of air contaminants will be authorized by the rule revisions, and the revisions will result in a reduction in VOC emissions due to the new control requirements on gasoline stations, gasoline terminals, gasoline bulk plants, and gasoline tank-trucks in 95 counties in the eastern half of Texas. Therefore, in compliance with 31 TAC §505.22(e), the commission affirms that this

rulemaking is consistent with CMP goals and policies. No comments were received during the comment period regarding the consistency of the proposed rules with the CMP.

HEARING AND COMMENTERS

Public hearings on this proposal were held in Austin on January 25, 1999 at 11:00 a.m. in Building F, Room 2210 at the TNRCC Complex, located at 12100 Park 35 Circle; in San Antonio on January 25, 1999 at 7:00 p.m. at the San Antonio City Council Chambers located at 103 Main Plaza; in Lufkin on January 26, 1999 at 2:00 p.m. at the Lufkin City Council Chambers located at 300 East Shepherd, Room 102; and in Tyler on January 26, 1999 at 7:00 p.m. at the Tyler Junior College Regional Training and Development Complex located at 1530 South Southwest Loop 323, Room 104. The comment period initially was to close on February 1, 1999, but was extended until February 15, 1999.

Two commenters submitted oral testimony, and 16 commenters submitted written testimony on the proposal. Austin Transportation Study, EPA, Lower Colorado River Authority, and the City of San Antonio (San Antonio) supported the proposed revisions. Austin Sierra Club (Sierra Club), Chevron Products Company (Chevron), Citgo Petroleum Corporation (Citgo), Dow Chemical Company (Dow), Exxon Company U.S.A. (Exxon), GATX Terminals Corporation (GATX), Jenkins and Gilchrist (Jenkins), Mobil Business Resources Corporation (MBRC), Mobil Oil Corporation (Mobil), Texas Chemical Council (TCC), Texas Oil and Gas Association (TXOGA), Ultramar Diamond Shamrock Corporation (UDS), and an individual generally supported the proposed revisions but suggested changes or clarifications. The City of Corpus Christi (Corpus Christi) opposed the proposed revisions. Chevron, Citgo, and GATX supported TXOGA's comments, while Dow supported TCC's comments.

The Sierra Club commented that Stage I vapor recovery reduces toxins and VOCs which can impact neighboring property.

The commission notes that implementation of Stage I vapor recovery results in reductions of ground-level ozone in ozone near-nonattainment areas, ozone nonattainment areas, and surrounding counties, as well as reduced public exposure to air toxics such as benzene.

Exxon, TXOGA, and UDS commented on the STATUTORY AUTHORITY section of the proposal and stated that the extension of the Texas Clean Air Act's authorizing provisions to adopt control measures in ozone attainment areas is "a stretch from a legal standpoint." However, Exxon, TXOGA, and UDS commented that from a technical standpoint, they believed the intent is directionally correct, although they would prefer "a complete sound science determination."

The commission believes that it does have authority to adopt the proposed rules pursuant to Texas Health and Safety Code, §382.012 and §382.017. This rulemaking is demonstrated to help the state achieve attainment of the ozone standards in its nonattainment areas as well as in its near nonattainment areas and therefore is needed to meet those federal standards. In adopting rules under §382.017(e), the commission's authority is not limited by the attainment status of an area but instead the commission is required to consider factors including, "existing physical conditions topography, population, and prevailing wind direction and velocity." This statutory language clearly allows for the commission to consider a regional approach to improve air quality as it has done here. Additionally, while certain air control strategies such as Stage II vapor recovery

systems are statutorily limited to use in nonattainment areas, control requirements for Stage I vapor recovery, gasoline terminals, gasoline bulk plants, and tank-truck leak testing are not.

An individual expressed concern about enforcement of the Stage I, gasoline bulk plant, gasoline terminal, and tank-truck leak testing rules in the 110-county TCAS area, while San Antonio commented that enforcement is critical to the success of the program.

The Field Operations Division and the Enforcement Division of the Office of Compliance and Enforcement are responsible for enforcing the Chapter 115 rules, with the Air Program responsible for the gasoline bulk plant, gasoline terminal, and tank-truck leak testing rules, and the Waste Program responsible for the petroleum storage tank (PST) rules at gasoline stations. The Waste Program's inspectors will enforce the Stage I vapor recovery rules at gasoline stations when conducting their routine PST inspections.

Most of the gasoline terminals which will have to comply with the proposed rules are currently subject to air permits and/or to similar requirements under 40 CFR 63, Subpart R (the Gasoline Distribution NESHAP), and therefore are already being inspected for compliance. Consequently, only a limited number of additional gasoline terminals will need to be inspected for compliance with the proposed Chapter 115 rules. Based on a survey of throughput at gasoline bulk plants, an estimated 75% are expected to be exempt from the vapor balance requirement because their gasoline throughput is less than 4,000 gallons per day (averaged over each consecutive 30-day period). Therefore, only a relatively small number of gasoline bulk plants will need to be

inspected for compliance with the substantive requirements of the proposed rules. The Air Program's inspectors will enforce the gasoline tank-truck leak testing requirements when conducting their routine inspections at gasoline terminals and gasoline bulk plants. In conclusion, enforcement of these rules will not significantly increase the number of facilities currently inspected by the state and local governments. However, enforcement of these rules will cause a minor increase in workload during inspection of the affected facilities.

Mobil commented on a February 4, 1999, letter from the commissioners to Governor George W. Bush and suggested that this letter inaccurately represented that the proposed rulemaking only affects gasoline stations that dispense over 125,000 gallons of gasoline per month. Mobil noted that other facilities (for example, gasoline terminals and gasoline bulk plants) will be affected by the rulemaking.

The purpose of the letter was to clarify several common misconceptions regarding the TCAS and to provide a status report to Governor Bush. For example, the purpose of the portion of the letter that Mobil cited was simply to clarify that the proposed Stage I rules would not require installation of Stage I equipment at all gasoline stations in the covered attainment counties, but only at the largest of these gasoline stations (those with a monthly gasoline throughput of at least 125,000 gallons). The letter was never intended to give a detailed description of the elements of the proposed rulemaking.

Citgo suggested that it be clarified that the use of equipment in maintenance operations, which can involve transfer of VOC liquid, does not require controls when conducted for periodic maintenance

purposes as allowed under §101.7. Citgo cited the following examples of these types of operations: removal of basic sediment and water or water draw into vacuum trucks from storage tanks, tank-to-tank product transfers using portable pumps, or other such activities.

Air emissions associated with upset conditions and maintenance are regulated by Chapter 101, 30 TAC §101.6 (concerning Upset Reporting and Recordkeeping Requirements), and §101.7 (concerning Maintenance, Start-up, and Shutdown Reporting, Recordkeeping, and Operational Requirements), and not by Chapter 115, unless otherwise specifically stated. The commission has made no changes in response to the comment.

Exxon, MBRC, TXOGA, and UDS commented on the definition of continuous monitoring in §115.10(6) and stated that this definition is more stringent than federal requirements and TNRCC monitoring protocols being developed for federal compliance assurance monitoring (CAM) and periodic monitoring (PM) requirements by state rule.

There are no federal CAM or PM requirements that define the percentage of data that must be collected for a monitoring device to be considered continuous. Therefore, the definition of continuous monitoring in §115.10(6) is not more stringent than federal requirements. The CAM requirements will be included in General Operating Permits (GOPs), but the commission has not established or even proposed any CAM requirements yet. It should be noted that Title 40 CFR 64.10 (Savings Provisions) of the CAM rules states:

"(a) Nothing in this part shall:

(1) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. *The requirements of this part shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.*
[emphasis added]"

Regarding PM, Title 40 CFR 70 (State Operating Permit Programs) simply specifies that states must implement PM, but there are no federal rules which establish the details of PM. Instead, the EPA is giving the states guidance on PM. No PM requirements established or drafted to date have required continuous monitoring.

In addition, neither CAM nor PM rules in 40 CFR 64 and 70, respectively, define "continuous monitoring." However, the CAM rule preamble does say that the rule requires data collection four times per hour, which is consistent with the EPA's definition of continuous monitoring. The

rule does not specify a certain percentage of data that must be collected, but instead simply requires monitoring at all times the unit is operating, except during events such as monitoring malfunctions, quality assurance/quality control, etc.

Finally, it should be noted that the commission did not propose to revise the existing definition of continuous monitoring. This definition is simply being numbered in response to revised *Texas Register* rules (23 TexReg 1289, February 13, 1998) which require numbering of definitions. The commission has made no changes in response to these comments.

No comments were received on the definition of cutback asphalt. This term is used within the Chapter 115 cutback asphalt rules (§§115.512, 115.513, 115.515-115.517, and 115.519). Because in separate rulemaking the commission is proposing to relocate the definition of this term to a new §115.510, concerning Cutback Asphalt Definitions (see the April 23, 1999 issue of the *Texas Register* (24 TexReg 3178)), the commission has deleted the definition of cutback asphalt from §115.10.

MBRC, TXOGA, and UDS commented on §115.10 and suggested that the proposed new definitions of flare and vapor combustor do not allow vapor combustors to be treated as flares.

While it is true that vapor combustors are clearly excluded from the definition of flare, §115.215 and §115.216 allow the owner/operator of a vapor combustor the option of treating the unit as a flare for purposes of testing, monitoring, and recordkeeping requirements as an alternative to meeting the corresponding vapor combustor requirements. The commission has made no changes in response to the comment. However, the commission has revised the definition of flare to make it clear that a flare is an open combustor which is used as a control device. This will prevent the definition from being incorrectly used for open combustors which are not control devices.

No comments were received on the proposed definition of regional VOC zone. The commission has replaced this definition with a definition of covered attainment counties because it believes this term is more descriptive. The counties specified in the definition are the same as proposed. The commission has replaced all references to regional VOC zone in the rule language accordingly.

Jenkins commented on §115.10 and suggested that the definition of tank-truck tank be revised to apply only to tanks that are permanently mounted on and affixed to a tank-truck or trailer. Jenkins' intent was to exclude portable tanks, known as "isocontainers," from the definition of tank-truck tank such that isocontainers would be exempt from the annual vapor-tightness testing requirements of §§115.214(a)(1)(C) and 115.234-115.239.

This comment focuses on vapor-tightness testing of "isocontainers." The commission does not believe that the definitions section (i.e., §115.10) is the appropriate place to address concerns about §§115.214(a)(1)(C) and 115.234-115.239, and has made no changes to §115.10 in response to

the comment. The commission instead is addressing the commenter's concerns in the discussion regarding §115.214(a)(1)(C) and §115.234(4).

Exxon, MBRC, TXOGA, and UDS commented that the definitions of vapor control system and vapor recovery system in §115.10 are the same, and stated that a vapor recovery system can include a recovery device that does not destroy emissions but instead recovers them. The commenters also noted that federal rules differentiate a recovery device from a control device.

The new definition of vapor control system is deliberately identical to the existing definition of vapor recovery system. The existing definition of vapor recovery system includes both recovery and combustion (destruction) control devices, but often the term has been mistakenly read to mean that only recovery-type control devices are included. To minimize any confusion, the commission is adding a definition of vapor control system, which is identical to the existing definition of vapor recovery system. This will facilitate a transition in the Chapter 115 rules to the more general term "vapor control system" from the misleading term "vapor recovery system." The terminology used in federal rules is not pertinent to the clarification of the Chapter 115 state rules which the commission is making by adding a definition of vapor control system. The commission has made no changes in response to the comment.

Citgo and an individual commented on §115.211(1)(B), which establishes an emission limit of 20.0 mg/l for vapor control systems at gasoline terminals in the covered attainment counties. Citgo, while noting that the company's gasoline terminals meet the 20.0 mg/l emission limit, objected to this limit on

the basis that it would remove approximately one half of the compliance margin which is now available to accommodate operational and test method variables. The individual suggested that since nearly all gasoline terminals in the covered attainment counties can meet a 10.0 mg/l emission limit, the TNRCC should require all gasoline terminals in this area to meet this limit.

The 20 mg/l limit is more stringent than the current 80 mg/l limits in Chapter 115 (for Gregg, Nueces, and Victoria Counties) and in 40 CFR 60, Subpart XX, for gasoline terminals; and the 35 mg/l limit of 40 CFR 60, Subpart XX, for gasoline terminals which were constructed or refurbished on or after December 17, 1980. As noted previously, the commission surveyed the test results for gasoline terminals in the covered attainment counties and the current ozone nonattainment counties and determined that the vast majority (94%) meet the 10.0 mg/l emission limit in 40 CFR 63, Subpart R (Gasoline Distribution NESHAP), with the remaining 6.0% showing compliance with a 20.0 mg/l emission limit. Adequate maintenance, rather than replacement, of existing control devices in the covered attainment counties is more cost-effective. It should be noted that Citgo stated that its control devices "operate well below both the current as well as the proposed [(20 mg/l)] mass emission limitation," which indicates that the 20 mg/l limit affords gasoline terminals in the covered attainment counties an adequate "compliance margin." Consequently, the commission believes that a 20.0 mg/l emission limit is appropriate for gasoline terminals in the covered attainment counties. The commission has made no changes in response to the comment.

MRBC, TXOGA, and UDS stated that §115.211 should specify that facilities are required to either meet the flare requirements of 40 CFR §60.18(b), or meet the specified emission limit.

Section 115.215(3) already specifies that compliance with the flare requirements of 40 CFR §60.18(b) is considered to demonstrate compliance with the emission specifications and control efficiency requirements of §115.211 and §115.212. The commission has made no changes in response to the comment.

The commission has revised §115.211(1)(B) by extending the compliance date to April 30, 2000 in response to Mobil's comment on §115.219 that the proposed December 31, 1999 compliance date represents an aggressive schedule. The revised compliance date will provide the regulated community with additional time to comply with the new requirements, but will still ensure that the emission reductions occur prior to the critical 2000 ozone season.

Dow commented on §115.212(a)(1) and (6), and (b)(1) and suggested that pressurized loading should be given as an alternative to using a vapor control system or a vapor balance system.

The commission agrees and has made the suggested changes. This will clarify how compressed or liquefied gas loading is to be controlled.

Dow commented on §115.212(a)(2) and (b)(2), which state: "After unloading, transport vessels must be kept vapor-tight until the vapors in the transport vessel are returned to a loading, cleaning, or

degassing operation and discharged in accordance with the control requirements of that operation."

Dow requested confirmation that the intent of the new language "in accordance with the control requirements of that operation" is equivalent to the previous language "the requirement to discharge the vapors remaining in the transport vessel after unloading to a vapor recovery system does not apply if the transport vessel is refilled, degassed, and/or cleaned at an operation for which control of the vapors is not required."

The new language is intended to be a shorter, but equivalent, version of the old language. The commission has made no changes in response to the comment.

An individual suggested that the phrase "the contents may be placed in a portable container" in §115.212(a)(3)(A)(ii) and (E) and (b)(3)(A)(ii) and (E) be modified so that the portable container is leak-tight and will not emit any liquid or vapor VOC emissions.

As proposed, §115.212(a)(3)(A)(ii) and (E) and 115.212(b)(3)(A)(ii) and (E) allow residual VOC from a liquid transfer line, after VOC transfer, to be drained into a portable container, which is then closed and disposed of properly. The intent is that the portable container be closed vapor-tight when not in use, in order to prevent evaporation of the VOC into the atmosphere. The commission has clarified this intent by adding "vapor-tight" to the referenced rules.

Chevron, Exxon, MBRC, Mobil, TXOGA, and UDS commented on §115.212(a)(4)(C), which currently applies to gasoline terminals in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone

nonattainment areas and is proposed to be relocated from the existing §115.212(a)(9) and extended to the Beaumont/Port Arthur ozone nonattainment area and the covered attainment counties. The existing §115.212(a)(9) states that: "Each vapor control system shall be instrumented so that the pump(s) transferring gasoline to the transport vessels will not operate unless the vapor control system is properly connected and properly operating. No transport vessel loading shall take place at a loading rack when the vapor control system serving that loading rack is out of service or is not operating in accordance with the manufacturer's parameters." Chevron, Exxon, MBRC, TXOGA, and UDS stated that this "loading lockout" language is overly broad and needs to be clarified.

The intent of the requirements is twofold. First, the intent is for gasoline terminals to be equipped with sensors and other equipment which is designed and connected to monitor the status of the control device, and if the control device malfunctions (i.e., is not operating in accordance with the control device manufacturer's specifications) or is not operational (i.e., not in service), then the system automatically stops gasoline transfer to the transport vessel(s) immediately. Most control devices are equipped so that when they complete a startup cycle and are operating in accordance with the manufacturer's specifications, they send a permissive signal to the pump(s) serving the loading rack(s) which allows loading to begin. Because this is a standard feature on gasoline terminal control devices, the commission believes that this requirement is appropriate and has revised the proposed §115.212(a)(4)(C) and (b)(4)(C) to more clearly state the intent.

Second, the intent of the requirements is for gasoline terminals to be equipped with sensors and other equipment which is designed and connected to monitor either a positive coupling of the

vapor return line to the transport vessel, or the presence of vapor flow in the vapor return line between the transport vessel and the terminal's vapor collection system. Further, the intent is that if the system detects that the vapor return line is not connected during gasoline transfer, then the system automatically stops the transfer of gasoline to the transport vessel in the affected loading bay. These requirements have applied to gasoline terminals in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas since the November 15, 1996 compliance date.

Chevron, TXOGA, and UDS commented that specific information regarding the emission reductions associated with loading lockout was unavailable from the commission staff. Chevron, MBRC, TXOGA, and UDS stated that the commission's cost estimates are low and that the cost of control is too high for relatively low emission reductions.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas, the emission reductions associated with the loading lockout are included as part of the gasoline terminal emission reduction estimates of 2.17, 0.77, and 0.63 tons per day, respectively, as given in the 1996 "Fix-Ups to the 15% Rate-of-Progress SIP for Dallas/Fort Worth, El Paso, Beaumont/Port Arthur, and Houston/Galveston Ozone Nonattainment Areas." It should be noted that any loss of emission reduction credit could require the implementation of other rules to make up the difference. Specific estimates for the covered attainment counties were unavailable because most of the companies did not provide the necessary information regarding current terminal configuration when requested. The commission clarifies that the estimated cost given in the rule

proposal for equipping a gasoline terminal in the covered attainment counties to meet the loading lockout requirement associated with vapor return line connections should have specified that the estimate was per loading bay. However, because gasoline terminals in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas were already required to meet the loading lockout requirements by November 15, 1996, there is no additional cost to these terminals associated with continuing to comply with the rule. The commission believes that it is appropriate for gasoline terminals in ozone nonattainment areas to have more stringent requirements than in attainment and near-nonattainment areas, and therefore is retaining the vapor return line loading lockout requirement for gasoline terminals in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas. For the covered attainment counties and the Beaumont/Port Arthur ozone nonattainment area, the commission has revised §115.212(b)(4)(C) to include the gasoline transfer lockout requirement when the vapor control system is out of service or not operating properly, but has deleted the proposed loading lockout requirement associated with vapor return line connections. In future rulemaking, the commission may propose to add this requirement to all or part of the covered attainment counties if additional VOC emission reductions are found to be necessary.

Chevron, MBRC, TXOGA, and UDS stated that the requirement for instrumentation on the vapor connection goes beyond federal requirements found in the gasoline distribution NESHAP (Title 40 CFR Part 63, Subpart R), the gasoline terminal new source performance standards (NSPS) (Title 40 CFR Part 60, Subpart XX), and benzene transfer operations NESHAP (Title 40 CFR Part 61, Subpart BB).

The benzene transfer operations NESHAP applies to materials which are predominantly benzene. Title 40 CFR Part 61, §61.300(a) specifically excludes loading racks at which gasoline is loaded. Consequently, the requirements of the benzene transfer operations NESHAP are not pertinent. The requirements of the gasoline distribution NESHAP and gasoline terminal NSPS were developed to apply to larger sources of air toxics and to new or modified gasoline terminals, respectively. In contrast, the Chapter 115 loading lockout requirements were developed to help achieve attainment with the ozone standard in ozone nonattainment areas. The commission believes that it is appropriate for the requirements of the rules to vary, given the varying purposes of those rules.

Chevron, MBRC, TXOGA, and UDS commented that automatic instrumentation cannot determine if the vapor hose is properly connected and can allow loading to continue if the hose is damaged or only partially connected. Chevron, MBRC, TXOGA, and UDS also stated that the operator loading the transport vessel can more effectively inspect the condition of the vapor hose and correct closure of the camlock latches, and also terminate gasoline loading if necessary. Mobil stated that ensuring transport vessels are prevented from loading without a properly connected and operating vapor control system should be left to the gasoline terminal.

While it is true that automatic instrumentation can allow loading to occur if the vapor hose contains a hole, or if the camlock fitting between the vapor hose and the truck is not completely secured, such instrumentation will prevent the uncontrolled loading of gasoline. During visits to various gasoline terminals, the commission's staff determined that transport vessel operators allow

vapor and liquid gasoline leaks to occur without taking corrective action. Therefore, the commission does not believe that relying on the operators alone is sufficient to ensure control of gasoline loading emissions. The commission has made no changes in response to the comment.

Chevron, MBRC, TXOGA, and UDS commented that because of design limitations, there is a response time for certain technology (thermistor-based or pressure-based mass flow sensors) before mass flow is detected. Consequently, some time may pass in which gasoline transfer is allowed, even if the vapor hose is not connected.

The commission's staff reviewed existing systems at gasoline terminals and determined that the response time of these systems allowed from approximately 110 to as high as 290 gallons of gasoline loading before mass flow of the vapors was detected. A typical response time is one minute, based upon the manufacturer's recommendation. Therefore, the commission has revised §115.212(a)(4)(C) to allow a response time of up to one minute. This will ensure that completely uncontrolled loading of an entire transport vessel does not occur while still taking into account a reasonable response time for thermistor-based and pressure-based mass flow sensors.

Chevron, MBRC, TXOGA, and UDS commented that loading pumps generally serve multiple loading bays and that the requirement that instrumentation shut off the loading pump(s) for a failure at a single bay would unnecessarily shut down all loading bays.

The commission has added a new §115.212(a)(4)(C)(ii), which allows the lockout of gasoline transfer to be limited to the loading bay in which the sensor was triggered.

Chevron, TXOGA, and UDS stated that some facilities, which have a vapor collection and holding design, do not require that the control device be activated during each transfer, and therefore will not necessarily have the control device operating at the time of loading.

The commission is aware of one gasoline terminal which has a variable vapor space holding tank design that can process the vapors independent of transport vessel loading. In order to address this unique design, the commission has revised the rule language to add a new §115.212(a)(4)(D), which specifies that for such gasoline terminals, if the variable vapor space holding tank serving the loading rack(s) does not have the capacity to store additional vapors for processing by the control device at a later time and the control device malfunctions or is not operational, then the system shall automatically stop gasoline transfer to the transport vessel(s) immediately.

Citgo commented on the proposed removal of the existing §115.212(a)(6)(B), which concerns permissible pressure relief valve emissions from gasoline transfer at gasoline bulk plants during emergency situations. This removal was proposed because upset conditions are already addressed in §101.6, Upset Reporting and Recordkeeping Requirements. Citgo commented that it is unclear whether this type of occurrence is in fact permissible or in fact an upset.

The paragraph being deleted only allows emissions from pressure relief valves during "emergency situations." While this term is not defined, the commission believes that an "emergency situation" which results in emissions from a pressure relief valve is clearly an upset condition. As noted earlier, air emissions associated with upset conditions (such as the venting of safety relief valves) are regulated by Chapter 101, §101.6 (concerning Upset Reporting and Recordkeeping Requirements), and not by Chapter 115, unless otherwise specifically stated. The commission has made no changes in response to the comment.

Dow commented on §115.212(a)(6)(D), concerning the non-dedicated loading lines control requirements for marine terminals in the Houston/Galveston ozone nonattainment area. Dow noted that "flash point less than 150 degrees Fahrenheit" should be "flash point of 150 degrees Fahrenheit or greater" for consistency with the low vapor pressure/high flash point exemption of §115.217(a)(5)(B)(iv).

The commission has corrected this typographical error in §115.212(a)(6)(D).

Dow also suggested that §115.212(a)(6)(D) be deleted. Dow stated that United States Coast Guard (USCG) regulations (33 CFR 154.850(h)) do not allow residual vapors in the loading line to be cleared with compressed air or gas, that clearing the loading line using a nitrogen purge is not practical, and that clearing the loading line using pigging is defined as pneumatic clearing by the USCG and therefore is not allowed.

Section 115.212(a)(6)(D) does not require purging of the loading lines with compressed air or gas, such as nitrogen, or by pigging. Instead, §115.212(a)(6)(D) requires that when VOC with a vapor pressure of 0.5 psia or greater is loaded into a marine vessel and the next VOC transfer through the same (i.e., non-dedicated) loading line(s) is a VOC with a low vapor pressure (i.e., less than 0.5 psia), then the low vapor pressure loading must be controlled in order to recover or destroy the residual vapors from the previous VOC transfer. The commission has made no changes in response to the comment.

Dow requested clarification of the intent of the "once-in, always-in" requirement of §115.212(a)(7).

Once-in, always-in (OIAI) is an EPA concept which means that once emissions from a source exceed the applicability cutoff for a particular VOC regulation in the SIP, that source is always subject to the control requirements of the regulation. The purpose of this requirement is two-fold. First, it serves to discourage a source already subject to regulation from installing minimal controls to circumvent Reasonably Available Control Technology (RACT) requirements. Second, it improves the clarity of VOC regulations by minimizing the confusion over whether variations in production cause a particular source to be covered by a regulation. A major EPA concern which resulted in the OIAI requirements was their desire to prevent the removal of a control device, which would then result in a significant increase in emissions (i.e., a throughput reduction of 5.0% could result in an emissions increase of 90% if the control device were removed). To provide flexibility but prevent such emissions increases, the rule language includes an incentive for cost-effective and innovative approaches to pollution prevention and waste minimization which reduce

emissions to no more than the controlled levels prior to removal of control devices. Also, it should be noted that in the event of revised rules which are less stringent than previous requirements (for example, revisions to definition of VOC which exclude additional compounds from classification as VOC), the OIAI requirements will apply to the extent that emissions from a source exceed the applicability cutoff for the revised version of the rules. The commission has revised §115.212(a)(7) to refer to “exemption from permitting” rather than “standard exemption” due to the repeal of §116.211, concerning Standard Exemption List, and the adoption of new sections in Chapter 106, concerning Exemptions from Permitting. (See the March 4, 1997 issue of the *Texas Register* (22 TexReg 2439)).

Dow commented on §115.212(b)(1), concerning general (i.e., non-gasoline) VOC loading, and suggested that this rule specifically exclude marine terminals.

Section 115.212(b) specifically states that the requirements apply only to "land-based VOC transfer." In addition, the proposed §115.217(b)(4) specifically includes an exemption for all loading and unloading of marine vessels in the covered attainment counties. To clarify the exempt status of marine vessel loading/unloading in the covered attainment counties, the commission has relocated this exemption from the proposed §115.217(b)(4) to a new §115.217(b)(6). In addition, it has come to the commission's attention that the phrase "general vapor control" in the catchlines of §115.212(a)(1) and (b)(1) would more accurately reflect the contents of these rules if changed to "general VOC control." The commission has revised §115.212(a)(1) and (b)(1) accordingly.

Dow commented on the 90% overall control options of §115.213(b), (c), and (d). Dow stated that the applicable vapor pressure range should be stated as "equal to or greater than..." 0.5 or 1.5 psia, depending on the rule, because the vapor pressure exemptions in §115.217 are stated as "less than...."

The commission has corrected §115.213(b), (c), and (d) as suggested.

Dow stated that the parenthetical expression "(excluding loading into marine vessels and loading at gasoline terminals and gasoline bulk plants)" in §115.213(b), (c), and (d) is redundant with the phrase "other than gasoline terminals, gasoline bulk plants, and marine terminals" and should be deleted.

Neither phrase is used in §115.213(d). In §115.213(b) and (c), both phrases are necessary to clearly delineate the operations and associated emissions which are included in and excluded from the 90% overall control option. However, because §115.213(b) and (c) include this clear delineation, the parenthetical phrase "(excluding loading into marine vessels and loading at gasoline terminals and gasoline bulk plants)" in paragraph (1) of §115.213(b) is unnecessary. Therefore, the commission has deleted this phrase from §115.213(b)(1).

Dow commented that the reference to §115.212(b)(1)-(5) in §115.213(c) instead should be to §115.213(b)(1)-(5).

The commission has corrected this typographical error.

Dow suggested that §115.213(b) and §115.214(a)(1)(D) be reworded to add more exclusions from control for those VOC loading operations which, under the 90% overall control option in §115.213(b), are not required to control vapors caused by loading of VOC. Dow noted that the 90% overall control option in §115.213(b) was previously in the exemptions section but is being relocated to the alternate control requirements section. Dow suggested that §115.214(a)(1)(D) be reworded to exclude from the requirements of §115.214(a)(1)(A) and (B) a VOC loading operation which, under the 90% overall control option, is not required to control vapors caused by loading VOC. Dow also suggested that §115.213(b) exclude from §115.212(a)(3)(A) and (C) and §115.214(a)(1)(A)(ii) and (iii) and (C) any loading operations which, under the 90% control option, are not required to control vapors caused by loading VOC into transport vessels.

For VOC loading operations which are not required to control vapors caused by loading VOC into a transport vessel, the suggested changes would exclude the requirements for annual vapor tightness testing and inspections for visible fumes and significant odors. The commission agrees that it is not necessary to impose these requirements if the emissions from the transport vessel loading operation are not required to be controlled. The liquid leak inspection and repair requirements will still apply, however. The commission agrees that these revisions are appropriate and has added a new §115.213(b)(6) and §115.214(a)(1)(D) as suggested. For consistency, the commission has made similar revisions to §115.214(b)(1)(D) and §115.213(c).

Dow suggested that §115.213(d)(5) and §115.214(a)(3)(G) be reworded to add more exclusions from control for those marine vessel loading operations which, under the 90% control option in

§115.213(d)(5), are not required to control vapors caused by loading of VOC. Specifically, Dow stated that §115.214(a)(3)(g) should be clarified to exclude marine vessel loading operations which, under the 90% control option, are not required to control vapors caused by loading VOC into a marine vessel. Dow also suggested that §115.213(d) exclude from §115.214(a)(3)(A), (B)(ii) and (iii), and (D) any marine vessel loading operations which, under the 90% control option, are not required to control vapors caused by loading VOC into a marine vessel.

For marine vessel loading operations which are not required to control vapors caused by loading VOC into a marine vessel, the suggested changes would exclude the requirements for annual vapor tightness testing and inspections for visible fumes and significant odors. The commission agrees that it is not necessary to impose these requirements if the emissions from the marine vessel loading operation are not required to be controlled. The liquid leak inspection and repair requirements will still apply, however. The commission agrees that these revisions are appropriate and has revised §115.213(d)(5) and §115.214(a)(3)(G) as suggested.

Dow commented on §115.214(a)(1)(C) and (b)(1)(C), and §115.224(2), concerning the annual leak testing requirements for tank-truck tanks. Dow suggested that these rules be revised to only require that the tank-truck tank be leak-tested at the loading point (provided that the loading point is in Texas), and that all unloading operations be exempt from the leak testing requirements of §115.214(a)(1)(C) and (b)(1)(C), and §115.224(2). Dow noted that intermodal portable tanks (such as "isocontainers") can come from a multitude of world-wide shipping points. Dow commented that leak testing would be less

burdensome on the loading facility because that facility will have more control over, and be in a better position to test, each tank before it is loaded.

Dow's comments are addressed in detail in the discussion regarding §115.235(4). In summary, the commission agrees that the leak testing requirements should apply to general (i.e., non-gasoline) VOC tank-truck tanks at the loading point, but not at the unloading point. However, the commission believes that for gasoline tank-truck tanks, the leak testing requirements should apply at both the loading point (i.e., gasoline terminals and gasoline bulk plants) and unloading point (i.e., gasoline bulk plants and gasoline stations). Therefore, the commission has revised §115.214(a)(1)(C) and (b)(1)(C), and §115.224(2) accordingly.

An individual commented on §115.214(a)(2), concerning the monthly leak inspection requirement for gasoline terminals. The individual suggested that wording from §§115.352-115.357, concerning Fugitive Emission Control in Petroleum Refining, Natural Gas/Gasoline Processing, and Petrochemical Processes in Ozone Nonattainment Areas, be incorporated to make this leak repair effort equivalent. The individual also stated that the phrase “reasonable effort,” concerning repairing of leaking components at gasoline terminals, is subjective and should be defined.

Section 115.214(a)(2) already allows a gasoline terminal owner/operator to use a hydrocarbon gas analyzer to meet the fugitive monitoring requirements of §§115.352-115.357 as an alternative to conducting a monthly audio/visual/olfactory (AVO) program. The individual's suggestion would mandate the use of an instrument monitoring program. During the development of the federal

Gasoline Distribution NESHAP standards for gasoline terminals (Title 40 CFR Part 63, Subpart R, promulgated December 14, 1994 (59 FR 64303)), the EPA revised the requirement for control of equipment leak fugitives from a quarterly instrument monitoring program to a monthly AVO program. The EPA relaxed the requirement in response to its review of data submitted by the American Petroleum Institute (API) which showed that: 1) emission factors for gasoline terminals using an AVO monitoring program are over 99% lower than the 1980 AP-42 refinery equipment emission factors that the EPA had used for the development of the proposed NESHAP standard; and 2) gasoline terminals that implemented an AVO program achieved essentially equivalent emission reductions as those terminals that used an instrument monitoring program. Because the API data, submitted to and accepted by the EPA and used in the agency permitting guidelines, showed that AVO and instrument leak detection and repair fugitive monitoring programs achieve essentially equivalent emission reductions for gasoline terminals, the commission has made no changes in response to the comment. Regarding the phrase “reasonable effort,” while the commission agrees that this phrase is subjective, this term has the meaning commonly ascribed to it in the field of air pollution control, and the commission does not believe that further definition is necessary. However, it has come to the commission's attention that the reference to §§115.352-115.357 and 115.359 in §115.214(a)(2) and (b)(2) instead should be to only §§115.352-115.357, since the compliance date in §115.359 is not pertinent to gasoline terminals opting to use this instrument leak detection program. The commission has revised §115.214(a)(2) and (b)(2) accordingly. Likewise, for marine terminals the commission has revised §115.214(a)(3)(F) to refer only to §§115.352-115.357.

Dow and TXOGA commented on the proposed §115.215(3). TXOGA stated that the rule language should make clear that all flares, and vapor combustors which the owners or operators elect to treat as flares, are sufficient to meet the gasoline terminal emission standard of 10.8 mg/l which applies in ozone nonattainment counties, while Dow stated that it should be clarified that the flare requirements also apply to marine terminals. TXOGA also expressed concern that a vapor combustor which the owner or operator elects to treat as a flare would have to comply with the contradictory requirements of §115.215 and 40 CFR 60.18, and stated that such vapor combustors should only be subject to the flare requirements. TXOGA expressed a similar concern about §115.216(1)(A)(iv) and (B).

The intent is that the owner/operator of a vapor combustor treat the unit as a direct-flame incinerator (or thermal oxidizer), but alternatively may choose to consider the unit to be a flare and meet the flare requirements specified in 40 CFR 60.18(b) and Chapter 111. As noted in §115.215(3), compliance with the flare requirements of 40 CFR 60.18(b) is considered to demonstrate compliance with the emission specifications and control efficiency requirements of §115.211 and §115.212, which include the gasoline terminal, gasoline bulk plant, land-based VOC loading, and marine terminal emission standards. The commission has revised §115.215(3) to make it clear that this presumption applies to flares as well as vapor combustors which the owner/operators have elected to treat as flares. In addition, the commission has revised §115.213 to make it clear that vapor combustors which the owner/operators have elected to treat as flares are to comply with the flare requirements as an alternative, and not in addition to, the requirements for vapor combustors which the owner/operators have not chosen to treat as flares. Consequently, there is no contradictory requirement.

No comments were received on the proposed change to §115.216 which would have added a requirement that records must include information on how the design standard or operation of equipment meets the emission specifications and control requirements. However, the commission deleted this proposed change because it believes a more thorough analysis of the impacts on the regulated community is needed.

TXOGA commented on §115.216(1)(A)(iv) and (B) and expressed a similar concern that a vapor combustor which the owner or operator elects to treat as a flare would have to comply with the requirements for both flares and vapor combustors.

Section 115.216(1)(A)(iv), which specifies the monitoring requirements for vapor combustors, specifically states “Alternatively, the owner or operator of a vapor combustor may consider the unit to be a flare and meet the requirements of subparagraph (B) of this paragraph.” The commission believes that it is clear from the inclusion of the word “alternatively” that a vapor combustor which the owner or operator elects to treat as a flare would only have to comply with the flare requirements. The commission has made no changes in response to the comment.

Exxon, GATX, MBRC, TXOGA, and UDS suggested the addition of an exemption to §115.217(a)(2) which would allow the uncontrolled loading of interface/transmix/off-specification product at gasoline terminals of up to 1.0% (on an annual basis) of the volume of gasoline throughput that is controlled.

The commenters did not provide any supporting documentation, such as the volume of interface/transmix/off-specification product loaded and the cost of controlling the associated emissions. Control of the occasional loading of interface/transmix/off-specification product at gasoline terminals into transport vessels could be done relatively simply by either: 1) adding a vapor return pipe to the interface/transmix/off-specification product tank so that the loading of this product is controlled by the existing vapor control device serving the gasoline loading rack; or 2) adding a product pipe from the interface/transmix/off-specification product tank to one of the loading rack bays so that the loading of this product is done at the rack where an existing vapor return pipe is available to deliver the vapors to the existing control device. In either case, the addition of only one pipe is needed to control the emissions from the loading of interface/transmix/off-specification product into transport vessels since an existing control device would be used. The cost is expected to be insignificant compared to the cost of the existing control device and associated piping.

It should also be noted that the suggested 1.0% cutoff would allow a significant volume of gasoline to be loaded uncontrolled at a gasoline terminal. In order to estimate the potential emissions associated with the suggested exemption, the commission obtained statewide gasoline throughput data from gasoline tax records. The statewide gasoline throughput was allocated to each county by the estimated vehicle miles traveled. The total gasoline throughput for the 110-county TCAS area was then assumed to be a reasonable approximation of the total volume of gasoline loaded at gasoline terminals in the TCAS area. Even if half of the interface/transmix/off-specification product is assumed to be diesel fuel, the commenters' suggested exemption would still allow up to

approximately 165 tons per year of uncontrolled emissions in the 110-county TCAS area.

Consequently, the commission does not believe that the suggested exemption is appropriate and has made no changes in response to the comment.

No comments were received on §115.217(a)(5), concerning marine vessel transfer exemptions.

However, the commission has revised §115.217(a)(5)(A)(i) to clarify that all loading and unloading of marine vessels in ozone nonattainment areas other than the Houston/Galveston area are exempt from the entire division (concerning Loading and Unloading of VOC). The commission has also revised §115.217(a)(5)(B) to clarify that in the Houston/Galveston area, inspections required during marine vessel transfer operations which are exempt from §115.212(a)(6) do not include looking for visible fumes and significant odors since emissions from the VOC transfer are not required to be controlled under §115.212(a)(6). However, inspections required during marine vessel transfer operations which are exempt from §115.212(a)(6) include looking for and correcting liquid leaks.

Dow and Mobil commented on §115.219. Dow stated that §115.219 should include a compliance date for flares which do not meet the requirements of 40 CFR §60.18. Mobil stated that the proposed December 31, 1999 compliance date represents an aggressive schedule. Mobil stated that some small facilities may have a difficult time in complying and questioned whether the commission intends to enforce the requirements and shut down these facilities immediately.

In response to Mobil's comment, the commission has extended the compliance date in §115.219 from December 31, 1999 to April 30, 2000. For consistency, the commission has likewise extended the December 31, 1999 compliance date to April 30, 2000 in §§115.211(1)(B), 115.229(d), and 115.239(b). This revised compliance date will provide the regulated community with additional time to comply with the new requirements, but will still ensure that the emission reductions occur prior to the critical 2000 ozone season. As with all of its rules, the commission will enforce the requirements after the compliance date and take appropriate action for noncompliance situations. In response to Dow's comment, the commission has added a new subsection (h) to §115.219 which establishes a compliance date of April 30, 2000 for flares which do not currently meet the requirements of 40 CFR §60.18.

Corpus Christi opposed the implementation of the proposed Stage I revisions in Nueces and San Patricio Counties and stated that Stage I controls have been implemented voluntarily at approximately 85% of the gasoline stations in these two counties. Corpus Christi suggested that the proposed revisions are unnecessary in Nueces and San Patricio Counties.

As noted in the BACKGROUND section of this preamble, the commission staff has conducted modeling which indicates that mobile source reductions (cleaner gasoline, NLEVs, and Stage I vapor recovery) will result in ozone reductions of one to four ppb (peak eight-hour ozone averages) and up to 3.6 ppb (peak one-hour ozone average) in much of east and central Texas. While the greatest reductions are seen in the Austin, San Antonio, and Tyler/Longview areas, modeling of the mobile source strategies shows a large area, including near-nonattainment areas

(such as Corpus Christi) and attainment areas, of reductions in peak one-hour and eight-hour average ozone levels. If, as Corpus Christi commented, most gasoline stations in Nueces and San Patricio Counties are already voluntarily implementing Stage I controls, then the adoption of Stage I requirements for the largest gasoline stations (those with a monthly gasoline throughput of at least 125,000 gallons) should not be burdensome to these gasoline stations. The commission has made no changes in response to the comment.

Dow's comments regarding §115.224(2) were addressed earlier. (See the discussion regarding comments on §115.214(a)(1)(C) and (b)(1)(C)). In summary, the commission believes that for gasoline tank-truck tanks, the leak testing requirements should apply at both the loading point (i.e., gasoline terminals and gasoline bulk plants) and unloading point (i.e., gasoline bulk plants and gasoline stations). Therefore, the commission has revised §115.224(2) accordingly for consistency with the corresponding changes to §115.214(a)(1)(C) and (b)(1)(C).

No comments were received on §115.225. However, it has come to the commission's attention that the lead-in paragraph in §115.225 should refer to §115.224 in addition to §115.221 and §115.222. This is because §115.225 includes Test Method 21 for determining VOC leaks by instrument, and §115.224 requires inspections for leaks. In order to include the proper reference, the commission has revised the lead-in paragraph of §115.225 to also refer to §115.224. In addition, the commission has revised §115.225 to add titles (catchlines) to the subsections in order to identify the topics covered. The commission also combined paragraphs (2)-(4) into a single paragraph

since these three paragraphs address the same topic (i.e., test methods for determining the concentration of VOC).

Mobil commented on §115.226(1), which requires that facilities maintain gasoline delivery and tank-truck leak testing records on-site. Mobil suggested that facilities be given the option of maintaining these records at an off-site location from which they can be provided to an inspector within a certain time frame, possibly one week.

Section 115.226(2)(A) and (B) already allows only the minimum records to be kept at the facility (specifically, those required by §115.226(1)), with records of testing and throughput kept, but not necessarily at the site. Therefore, the commission has made no changes to §115.226(1) in response to the comment.

Dow commented that §115.226(2)(B) should specify that the monthly gasoline throughput records should include the calendar month and year, and the total facility gasoline throughput for each calendar month, for consistency with §115.226(2)(C).

The commission agrees and has made the suggested change. In addition, the commission has revised §115.226(2)(C) by relocating the language which specifies that records must be made available to representatives of the executive director, EPA, or any local air pollution control

program with jurisdiction from §115.226(2)(C) to the lead-in paragraph of §115.226. This change will make it clear that in all cases, the required records must be made available upon request by these representatives.

Dow suggested that rather than listing the sections that do not apply, the exemptions in §115.227 should instead list the sections which still apply.

The commission agrees that the exemptions in §115.227 should list the sections which apply, rather than listing the sections that do not apply, and has revised §115.227 accordingly.

Dow commented that §115.227(1) and (3), which provide exemptions for small capacity (no more than 1,000 gallons) gasoline storage tanks at gasoline stations, are not complete and should include more sections from which the owner or operator is exempt. Specifically, Dow stated that a gasoline station which is exempt based on having one or more small storage capacity tanks should also be exempt from the leak-tightness testing requirement of §115.224(2), the testing requirements of §115.225, and the gasoline delivery and tank-truck leak test recordkeeping requirements of §115.226.

The commission agrees that a gasoline station which is exempt based on having one or more small storage capacity tanks should also be exempt from the leak-tightness testing requirement of §115.224(2) and the gasoline delivery and tank-truck leak test recordkeeping requirements of §115.226(1), since the gasoline delivery is not required to utilize Stage I vapor recovery equipment. Therefore, the commission has revised §115.227 accordingly. The commission agrees

that a gasoline station which is exempt based on having one or more small storage capacity tanks should also be exempt from testing requirements of §115.225. As noted earlier in the discussion of §115.225, Test Method 21 (for determining VOC leaks by instrument) is listed in §115.225, while §115.224(1) requires inspections for leaks. Although §115.224(1) applies regardless of storage tank capacity or gasoline throughput, it is necessary for §115.225 to apply because an owner or operator would use Test Method 21 to identify vapor leaks. Specifically, since the gasoline delivery is not required to utilize Stage I vapor recovery equipment, it is unnecessary to inspect for vapor leaks and significant odors. The commission believes, however, that it is reasonable to inspect for and correct liquid gasoline leaks during gasoline delivery at gasoline stations which are exempt from utilizing Stage I equipment based on having one or more small storage capacity tanks. The commission also believes that after unloading gasoline at such exempt gasoline stations, it is reasonable to require that tank-truck tanks be kept vapor-tight until the vapors in the tank-truck are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation. The commission has revised §115.227(1) and (3) accordingly.

Dow commented that §115.227(2) and (4), which provide exemptions for gasoline stations based upon gasoline throughput, are not complete and should include more sections from which the owner or operator is exempt. Specifically, Dow stated that a gasoline station which is exempt based on gasoline throughput should also be exempt from the leak-tightness testing requirement of §115.224(2), the testing requirements of §115.225, and the gasoline delivery and tank-truck leak test recordkeeping requirements of §115.226.

For the reasons given in the discussion of comments on §115.227(1) and (3), the commission agrees that a gasoline station which is exempt based on gasoline throughput should also be exempt from the leak-tightness testing requirement of §115.224(2) and the gasoline delivery and tank-truck leak test recordkeeping requirements of §115.226(1). Therefore, the commission has revised §115.227 accordingly. For the reasons given in the discussion of comments on §115.227(1) and (3), the commission agrees that a gasoline station which is exempt based on gasoline throughput should also be exempt from testing requirements of §115.225, but believes, however, that it is reasonable to inspect for and correct liquid gasoline leaks during gasoline delivery at gasoline stations which are exempt from utilizing Stage I equipment based on gasoline throughput. The commission also believes that after unloading gasoline at such exempt gasoline stations, it is reasonable to require that tank-truck tanks be kept vapor-tight until the vapors in the tank-truck are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation. The commission has revised §115.227(2) and (4) accordingly.

The EPA and Sierra Club commented on §115.227(4), which exempts gasoline stations in the covered attainment counties with a gasoline throughput of less than 125,000 gallons per month from the Stage I requirements of §115.221 and §115.222. The EPA and Sierra Club expressed the desire that gasoline stations below the 125,000 gallons per month threshold in the covered attainment counties be subject to these Stage I requirements.

The commission has estimated that the cost-effectiveness of Stage I for a small gasoline station (i.e., a station with a gasoline throughput between 10,000 and 25,000 gallons per month) is

approximately \$1,614 per ton of VOC reduced. By comparison, the EPA estimated the cost-effectiveness of recently promulgated motor vehicle control programs in EPA's *Tier 2 Study, EPA420-R-98-008* (July 31, 1998) as follows: 1) \$6,000 per ton of VOC reduced and \$1,380 to \$1,800 per ton of NO_x reduced for Tier 1 standards for light-duty vehicles and light-duty trucks; 2) \$457 to \$552 per ton of VOC reduced and \$150 to \$172 per ton of NO_x reduced for supplemental federal test procedure (SFTP) standards for aggressive driving; 3) \$2,050 to \$2,574 per ton of NO_x reduced for SFTP standards for emissions with the air conditioner on; and 4) \$1,974 per ton of VOC reduced and \$1,974 per ton of NO_x reduced for on-board diagnostics requirements. The commission has made no changes in response to the comment. However, the commission agrees that Stage I controls are cost-effective for gasoline stations having gasoline throughput as low as 10,000 gallons per month, and in the future may consider a second phase of rulemaking which would implement Stage I in the covered attainment counties for gasoline stations with a gasoline throughput below 125,000 gallons per month.

The commission has revised §115.229 by extending the compliance date to April 30, 2000 in response to Mobil's comment on §115.219 that the proposed December 31, 1999 compliance date represents an aggressive schedule. The revised compliance date will provide the regulated community with additional time to comply with the new requirements, but will still ensure that the emission reductions occur prior to the critical 2000 ozone season.

The Sierra Club commented on §115.229, which establishes the Stage I compliance schedule, and stated that cities should be given the flexibility to implement Stage I regulations prior to the 1999 ozone season.

Cities have the flexibility to implement the Stage I requirements early through city ordinances or voluntary programs. In response to Sierra Club's comment, the commission has revised §115.229(d) to make it clear that the phrase "as soon as practicable, but no later than..." in §115.229(d) means that before the April 30, 2000 compliance date, gasoline stations which are equipped for Stage I vapor recovery must utilize Stage I for each gasoline delivery by a gasoline tank-truck which is likewise equipped for Stage I vapor recovery. Likewise, the commission has revised §115.239(b) to make it clear that the phrase "as soon as practicable, but no later than..." in §115.239(b) means that before the April 30, 2000 compliance date, gasoline tank-trucks which are equipped for Stage I vapor recovery must utilize Stage I for each gasoline delivery at a gasoline station which is likewise equipped for Stage I vapor recovery.

Dow commented that the description of the proposed changes to §115.235 and §115.236 in the EXPLANATION OF PROPOSED RULES section of the rule proposal preamble gave incorrect titles for these sections.

The correct titles for §115.235 and §115.236 are Approved Test Methods and Recordkeeping, respectively. The commission corrected these titles in the EXPLANATION OF ADOPTED RULES section.

Dow and TCC commented on the proposed revisions to §115.235(4), which proposed that the alternative testing option applies to tank-truck tanks not required to be equipped with vapor collection equipment (e.g., pressure tanks), and more specifically references the leakage test method of 49 CFR 180.407(h).

The commenters' specific issues regarding tank-truck leak testing and the commission's responses are as follows.

TCC stated that the commission has "instituted a significant regulatory interpretation without notice and comment" which is "not specifically addressed in this rulemaking." TCC further stated that this rulemaking is the first opportunity for the regulated community to comment on the interpretation that "for tank-trucks not equipped with vapor collection equipment, the leakage test in 49 CFR §180.407(h) (U.S. Department of Transportation leakage test) is the appropriate test for the determination of vapor tightness.... For tank-trucks equipped with vapor collection equipment, Method 27 is applicable and should be used."

TCC is referring to an interpretation made by the agency's Air RIT, and specifically to interpretation Code Number R5-234.001 (signed July 3, 1997). It should be noted that the Air RIT established a "reconsideration process" in which the regulated community or the public may submit a request for reconsideration of any interpretations issued by the Air RIT. No such request has been received for the subject interpretation. In addition, the preamble to this rule

proposal specifically stated that the proposed revisions "reorganize and clarify the rules, including incorporation of a variety of interpretations made by the agency's Rule Interpretation Team" (24 TexReg 62, January 1, 1999) and that "the proposed changes to §115.235 also clarify that the alternative testing option of the existing §115.235(4) applies to tank-trucks not required to be equipped with vapor collection equipment (e.g., pressure tanks)...(24 TexReg 66)." Therefore, the commission disagrees with TCC's comments.

TCC requested clarification on the meaning of the phrase "equipped with vapor collection equipment."

Method 27 (Title 40 CFR Part 60, Appendix A) was originally promulgated to ensure that gasoline tank-trucks subject to the gasoline terminal NSPS (Title 40 CFR Part 60, Subpart XX) met the NSPS vapor-tightness standards. The definitions section of Method 27 (Definitions and Nomenclature, 2.1) defines "delivery tank vapor collection equipment" as "any piping, hoses, and devices on the delivery tank used to collect and route gasoline vapors either from the tank to a bulk terminal vapor control system or from a bulk plant or service station into the tank." In November 1993, Chapter 115 rule revisions were adopted which extended the ozone nonattainment area leak test requirements applicable to gasoline transport trucks to all tank trucks loading or unloading VOC having a true vapor pressure greater than or equal to 0.5 psia at loading facilities affected by the Chapter 115 division relating to VOC loading and unloading. When Test Method 27 is used for leak testing of tank-trucks carrying VOCs other than gasoline, "vapor collection equipment" means "any piping, hoses, and devices on the tank-truck tank used to collect and route VOC vapors either from the tank-truck tank to a vapor control system or

from a fixed roof storage tank into the tank-truck tank." The commission has deleted the reference in §115.235(a)(4) to "vapor collection equipment" in response to changes it made in §115.234 and §115.235 for the reasons discussed following the next comment.

Dow and TCC stated that 49 CFR 180.407(h) should be an acceptable alternative to EPA Test Method 27, regardless of whether the tank-truck tank is equipped with vapor collection equipment, due to their belief that: 1) out-of-state truck owners/operators which ship products to Texas are familiar with the United States Department of Transportation (DOT) requirements, but not the Chapter 115 requirements, which could result in confusion and probable noncompliance; 2) applying the Chapter 115 testing requirements to tank-truck tanks at the point of unloading could interfere with interstate commerce; 3) many Texas companies rely on the DOT leakage test in an effort to satisfy the Chapter 115 requirements, regardless of whether the tank-truck tank is equipped with vapor collection equipment; 4) Title 49 CFR 180.407(h) allows, but does not mandate, Test Method 27 in lieu of the DOT leakage test; and 5) because loading emissions are more significant than unloading emissions, there is little environmental benefit to requiring tank-truck tanks to have been leak tested using Test Method 27 at the unloading point.

Chapter 115 has required compliance with Test Method 27 leak testing for gasoline tank-trucks at both the loading point (i.e., gasoline terminals and gasoline bulk plants) and unloading point (i.e., gasoline bulk plants and gasoline stations) in ozone nonattainment counties for many years. The gasoline terminal NSPS (Title 40 CFR Part 60, Subpart XX) has also required compliance with Test Method 27 at new or modified gasoline terminals for many years. There are numerous

reasons why Test Method 27 is superior to the DOT leakage test for tank-truck tanks equipped with vapor collection equipment. In 1994, the DOT revised 49 CFR §180.407(h) to allow Method 27 to be substituted for 49 CFR §180.407(h), if the cargo tank is equipped with vapor collection equipment: "Cargo tanks equipped with vapor collection equipment may be leakage tested in accordance with the EPA's Method 27, as set forth in 40 CFR Part 60, Appendix A" (49 CFR §180.407(h)(2), November 3, 1994). The previous version of 49 CFR §180.407(h) established Method 27 an acceptable alternative "where applicable" (49 CFR §180.407(h)(2), June 12, 1989). The DOT interpreted this to mean where Method 27 was required, it could be substituted for the DOT leakage test. The revision to the rule, while making Method 27 more generally substitutable for 49 CFR §180.407(h), also highlights that Method 27 is designed physically for applicability to cargo tanks with vapor recovery equipment. The test apparatus section of Method 27 includes a test cap (Apparatus, 3.7) which is inserted on the end of the vapor recovery hose, to which the manometer and pressure-vacuum supply hose are connected. The applicability section of Method 27 (Applicability and Principle, 1.1) states "This method is applicable for the determination of vapor tightness of a gasoline delivery tank which is equipped with vapor collection equipment." Since Method 27 is not applicable to cargo tanks not equipped with vapor recovery equipment, the DOT leakage test is the appropriate test for these cargo tanks.

However, for cargo tanks which are equipped with vapor recovery equipment, the commission considers Method 27 to be a better test method because it is a more sensitive test and is more effective at finding leaks than the tests in 49 CFR §180.407. The following discussion compares Method 27 to the 49 CFR §180.407 tests and provides rationale for not considering the 49 CFR

§180.407 tests equivalent to Method 27 for tank-truck tanks equipped with vapor recovery equipment.

The DOT leakage test generally requires pressurization to 80% of the tank's maximum allowable working pressure. Review of this test method and comparison with Method 27 shows several notable differences. The major difference is that Method 27 requires a tank-truck tank to be tested under both pressure and vacuum conditions, while 49 CFR §180.407(h) does not require testing for leaks under vacuum conditions. The commission believes that vacuum testing is an integral part of leak testing, due to the fact that in some instances when a component is placed under pressure, the seals used in the different components can seal off, thus giving the appearance that no leak is present. These leaks would be detected with the vacuum test. The same kind of problem can exist when only vacuum testing is performed; therefore, conducting both pressure and vacuum testing is a more thorough method for locating leaks than either test by itself.

Additional support for this argument is found in the EPA response to comments received on the proposed Gasoline Distribution NESHAP (40 CFR 63, Subpart R). On Pages 7-8 of the *Background Information Document for Promulgated Standards for Gasoline Distribution Industry (Stage I)*, a comment was made that because leakage rates have declined over the years, the vapor tightness testing is unnecessary and the requirements are duplicative of current federal and state regulations. Another company commented that current DOT testing programs, with modifications if necessary, sufficiently address the leakage problem. EPA responded to these comments with the following statement: "Further, the test does not duplicate USDOT programs

or Federal and State requirements. As pointed out in the BID [Background Information Document], Volume I, Section 4.1.4.2, the current USDOT leakage test does not verify the integrity of some portions of the vapor containing equipment, etc..."

Another difference between the DOT leakage test method and Method 27 is that Method 27 requires that once the required testing pressure is reached, the tank be allowed to equilibrate. Pressure readings are taken initially and after five minutes to determine pressure change. A similar test is conducted under vacuum conditions. However, the DOT leakage test does not require an equilibration period.

While both the DOT leakage test and Method 27 require that pressure be maintained for five minutes, the DOT leakage test does not specify the necessary precision of the pressure gauge used, and therefore, how much loss of pressure is acceptable due to this lack of specified precision. In contrast, Method 27 specifies that the pressure gauge (liquid manometer, or equivalent) be capable of reading up to 500 mm of water, with 2.5 mm water precision. Since the DOT test pressures are specified in units of pounds of pressure gauge, a fairly stringent interpretation of "no loss of pressure" might be less than one psig (or 700 mm water). The Method 27 test requires that pressure loss be limited to no more than 75 mm of water. The detection of a smaller difference in pressure directly corresponds to detection of smaller leaks. Therefore, Method 27 is a more sensitive method for the detection of leaks than the DOT leakage test methods.

In addition, 49 CFR §180.407(h)(2) allows Method 27 as an acceptable alternative, but Method 27 does not allow 49 CFR §180.407(h) as an acceptable alternative. The implication is that Method 27 is the more stringent test.

While the commission believes that Test Method 27 is clearly superior to the DOT leakage test for tank-truck tanks equipped with vapor collection equipment, the commission also recognizes the inherent difficulties in requiring Test Method 27 leak testing for general VOC (i.e., non-gasoline) tank-truck tanks which originate outside Texas. Therefore, the commission has revised §115.234(a) and (b), and §115.235(a)(1) and (4), and (b)(1) such that Test Method 27 is mandatory for gasoline tank-truck tanks and an optional alternative to the 49 CFR §180.407(h) leakage test for general VOC (i.e., non-gasoline) tank-truck tanks. This change will provide maximum flexibility to the regulated community regarding leak testing of general VOC (i.e., non-gasoline) tank-truck tanks.

In addition, the commission revised §115.234(a)(1) and §115.235(a)(1) and (4) so that the leak testing requirements apply to general VOC (i.e., non-gasoline) tank-truck tanks at the loading point, but not at the unloading point. For gasoline tank-truck tanks, the commission has retained the requirement that such tanks comply with Method 27 leak testing at both the loading point (i.e., gasoline terminals and gasoline bulk plants) and unloading point (i.e., gasoline stations) in ozone nonattainment counties. This is necessary to continue to fulfill the EPA's RACT requirements for gasoline tank-trucks and also because gasoline has a relatively high volatility and is a high-volume product.

The commission has also revised §115.234(a) and (b), and §115.235(a)(1) and (b)(1) so that the tank-truck leak testing requirements only apply at facilities which are subject to §115.214(a)(1)(C), (b)(1)(C), or §115.224(2). This will ensure that the tank-truck leak testing requirements do not apply at facilities addressed by §§115.211-115.217 and 115.221-115.227 which are exempt from §115.214(a)(1)(C), (b)(1)(C), or §115.224(2) under §115.217 or §115.227.

Dow and Jenkins suggested that intermodal portable tanks ("isocontainers") be excluded from the leak testing requirements. Dow noted that such tanks can come from a multitude of world-wide shipping points. Jenkins stated that isocontainers are subject to DOT requirements of 49 CFR §173.32b (or the International Maritime Dangerous Goods (IMDG) requirements if transported outside the United States), that pressure testing conducted every five years to meet DOT or IMDG requirements is similar to the leak testing required under §§115.214(a)(1)(C) and 115.234-115.239, that only a small number of isocontainers fail the pressure testing conducted every five years to meet DOT or IMDG requirements, and that therefore more frequent testing of isocontainers will result in minimal emission reductions. Jenkins also stated that the companies who load or unload VOCs into or out of isocontainers generally do not own the isocontainers and that they are typically not dedicated for any particular product, facility, or transportation route. Jenkins commented that this made implementation of the testing requirements very difficult.

Jenkins did not provide specific data on how many isocontainers fail the DOT or IMDG pressure testing. In any case, the pressure testing identified by Jenkins is not equivalent to Test Method 27 for a variety of reasons. For example, pressure testing is intended to test structural integrity. The

pressure test requires pressurization to levels according to the tank's DOT classification. These levels are generally one and one-half times the tank's design or maximum allowable working pressure. At these higher pressures, the seals used in the components of the tank can be pushed outward and can seal off any possible leaks, thus giving the appearance that no leaks are present.

Also, the use of soap bubbles does not give a precise reading regarding possible leaks. Human error involved during the application of the soap and water solution may allow a leak to go undetected (i.e., failure to cover the entire tank system, including all valves, with the soap solution). There is also the problem of not being able to observe all areas of the tank where the solution has been applied. Furthermore, the soap-solution test is not equivalent, since the test is performed only under pressure conditions and cannot be performed under vacuum conditions. Finally for insulated tanks, visual inspection of leaks is limited by the insulation coating, resulting in the potential for error with the pressure test.

Isocontainers are normally attached to a trailer (or possibly a truck or railcar) when being loaded with VOC. Any truck, trailer, or railcar which is equipped with an isocontainer having a capacity greater than 1,000 gallons will meet the definition of "transport vessel," and therefore is subject to the loading/unloading requirements of §§115.211-115.217.

While the commission believes that Test Method 27 is clearly superior to the DOT or IMDG pressure test for portable tanks, the commission also recognizes the inherent difficulties in requiring Test Method 27 leak testing for such tanks. Therefore, the commission has revised

§115.237(a) by adding a new paragraph (3) which exempts portable tanks, as defined in 49 CFR 171.8, from the leak testing requirements. Section 115.214(a)(1)(C) references the requirements of §§115.234-115.237, but does not need to be revised because the new §115.237(a)(3) exempts portable tanks, as defined in 49 CFR 171.8. Therefore, the commission has made no changes to §115.214(a)(1)(C) in response to the comments.

An individual commented on §115.237(b), which exempts transport vessels other than tank-trucks from the annual vapor-tightness testing requirements. The individual opposed excluding railcars and marine vessels from the testing requirements in the covered attainment counties and suggested that the requirements of §§115.234-115.236 be applied to these sources.

The individual's suggestion is beyond the scope of this rulemaking, and therefore the commission has made no changes in response to this comment. However, the commission may reevaluate this suggestion in the future if additional VOC reductions are needed for attainment of the ozone NAAQS in the covered attainment counties.

The commission has revised §115.239 by extending the compliance date to April 30, 2000 in response to Mobil's comment on §115.219 that the proposed December 31, 1999 compliance date represents an aggressive schedule. The revised compliance date will provide the regulated community with additional time to comply with the new requirements, but will still ensure that the emission reductions occur prior to the critical 2000 ozone season.

STATUTORY AUTHORITY

The amendment is adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.017, which provides the commission with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

SUBCHAPTER A : DEFINITIONS

§115.10

§115.10. Definitions.

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the Texas Natural Resource Conservation Commission (commission), the terms used by the commission have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms which are defined by the TCAA, the following terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions for terms used in this chapter are found in §101.1 of this title (relating to Definitions) and §3.2 of this title (relating to Definitions).

(1) **Bakery oven** - An oven for baking bread or any other yeast-leavened products.

(2) **Beaumont/Port Arthur area** - Hardin, Jefferson, and Orange Counties.

(3) **Capture efficiency** - The amount of volatile organic compounds (VOC) collected by a capture system which is expressed as a percentage derived from the weight per unit time of VOC entering a capture system and delivered to a control device divided by the weight per unit time of total VOC generated by a source of VOC.

(4) **Carbon adsorption system** - A carbon adsorber with an inlet and outlet for exhaust gases and a system to regenerate the saturated adsorbent.

(5) **Component** - A piece of equipment, including, but not limited to pumps, valves, compressors, and pressure relief valves, which has the potential to leak VOC.

(6) **Continuous monitoring** - Any monitoring device used to comply with a continuous monitoring requirement of this chapter will be considered continuous if it can be demonstrated that at least 95% of the required data is captured.

(7) **Covered attainment counties** - Anderson, Angelina, Aransas, Atascosa, Austin, Bastrop, Bee, Bell, Bexar, Bosque, Bowie, Brazos, Burleson, Caldwell, Calhoun, Camp, Cass, Cherokee, Colorado, Comal, Cooke, Coryell, De Witt, Delta, Ellis, Falls, Fannin, Fayette, Franklin, Freestone, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Harrison, Hays, Henderson, Hill, Hood, Hopkins, Houston, Hunt, Jackson, Jasper, Johnson, Karnes, Kaufman, Lamar, Lavaca, Lee, Leon, Limestone, Live Oak, Madison, Marion, Matagorda, McLennan, Milam, Morris, Nacogdoches, Navarro, Newton, Nueces, Panola, Parker, Polk, Rains, Red River, Refugio, Robertson, Rockwall, Rusk, Sabine, San Jacinto, San Patricio, San Augustine, Shelby, Smith, Somervell, Titus, Travis, Trinity, Tyler, Upshur, Van Zandt, Victoria, Walker, Washington, Wharton, Williamson, Wilson, Wise, and Wood Counties.

(8) **Dallas/Fort Worth area** - Collin, Dallas, Denton, and Tarrant Counties.

(9) **El Paso area** - El Paso County.

(10) **External floating roof** - A cover or roof in an open-top tank which rests upon or is floated upon the liquid being contained and is equipped with a single or double seal to close the space between the roof edge and tank shell. A double seal consists of two complete and separate closure seals, one above the other, containing an enclosed space between them. An external floating roof storage tank which is equipped with a self-supporting fixed roof (typically a bolted aluminum geodesic dome) shall be considered to be an internal floating roof storage tank.

(11) **Flare** - An open combustor without enclosure or shroud which is used as a control device.

(12) **Flexographic printing process** - A method of printing in which the image areas are raised above the non-image areas, and the image carrier is made of an elastomeric material.

(13) **Fugitive emission** - Any VOC entering the atmosphere which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening designed to direct or control its flow.

(14) **Gasoline bulk plant** - A gasoline loading and/or unloading facility, excluding marine terminals, having a gasoline throughput less than 20,000 gallons (75,708 liters) per day,

averaged over each consecutive 30-day period. A motor vehicle fuel dispensing facility is not a gasoline bulk plant.

(15) **Gasoline terminal** - A gasoline loading and/or unloading facility, excluding marine terminals, having a gasoline throughput equal to or greater than 20,000 gallons (75,708 liters) per day, averaged over each consecutive 30-day period.

(16) **Houston/Galveston area** - Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.

(17) **Independent small business marketer of gasoline** - A person engaged in the marketing of gasoline who owns the dispensing equipment at a motor vehicle fuel dispensing facility and receives at least 50% of his annual income from the marketing of gasoline. A person is not an independent small business marketer of gasoline if such person:

(A) is a refiner; or

(B) controls (i.e., owns more than 50% of a business or corporation's stock), is controlled by, or is under common control with, a refiner; or

(C) is otherwise directly or indirectly affiliated with a refiner or with a person who controls, is controlled by, or is under common control with a refiner (unless the sole affiliation is

by means of a supply contract or an agreement or contract to use a trademark, trade name, service mark, or other identifying symbol or name owned by such refiner or any such person).

(18) **Internal floating cover** - A cover or floating roof in a fixed roof tank which rests upon or is floated upon the liquid being contained, and is equipped with a closure seal or seals to close the space between the cover edge and tank shell. An external floating roof storage tank which is equipped with a self-supporting fixed roof (typically a bolted aluminum geodesic dome) shall be considered to be an internal floating roof storage tank.

(19) **Leak-free marine vessel** - A marine vessel whose cargo tank closures (hatch covers, expansion domes, ullage openings, butterworth covers and gauging covers) were inspected prior to cargo transfer operations and all such closures were properly secured such that no leaks of liquid or vapors can be detected by sight, sound, or smell. Cargo tank closures shall meet the applicable rules or regulations of the marine vessel's classification society or flag state. Cargo tank pressure/vacuum valves shall be operating within the range specified by the marine vessel's classification society or flag state and seated when tank pressure is less than 80% of set point pressure such that no vapor leaks can be detected by sight, sound, or smell. As an alternative, a marine vessel operated at negative pressure is assumed to be leak-free for the purpose of this standard.

(20) **Marine loading facility** - The loading arm(s), pumps, meters, shutoff valves, relief valves, and other piping and valves that are part of a single system used to fill a marine vessel at

a single geographic site. Loading equipment that is physically separate (i.e., does not share common piping, valves, and other loading equipment) is considered to be a separate marine loading facility.

(21) **Marine loading operation** - The transfer of oil, gasoline, or other volatile organic liquids at any affected marine terminal, beginning with the connections made to a marine vessel and ending with the disconnection from the marine vessel.

(22) **Marine terminal** - Any marine facility or structure constructed to load oil, gasoline, or other volatile organic liquid bulk cargo into a marine vessel. A marine terminal consists of one or more marine loading facilities.

(23) **Natural gas/gasoline processing** - A process that extracts condensate from gases obtained from natural gas production and/or fractionates natural gas liquids into component products, such as ethane, propane, butane, and natural gasoline. The following facilities shall be included in this definition if, and only if, located on the same property as a natural gas/gasoline processing operation previously defined: compressor stations, dehydration units, sweetening units, field treatment, underground storage, liquified natural gas units, and field gas gathering systems.

(24) **Owner or operator of a motor vehicle fuel dispensing facility (as used in §§115.241-115.249 of this title (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities))** - Any person who owns, leases, operates, or controls the motor vehicle fuel dispensing facility.

(25) **Packaging rotogravure printing** - Any rotogravure printing upon paper, paper board, metal foil, plastic film, or any other substrate which is, in subsequent operations, formed into packaging products or labels.

(26) **Petroleum refinery** - Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oil, or through the redistillation, cracking, extraction, reforming, or other processing of unfinished petroleum derivatives.

(27) **Polymer and resin manufacturing process** - A process that produces any of the following polymers or resins: polyethylene, polypropylene, polystyrene, and styrenebutadiene latex.

(28) **Printing line** - An operation consisting of a series of one or more printing processes and including associated drying areas.

(29) **Publication rotogravure printing** - Any rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, or other types of printed materials.

(30) **Rotogravure printing** - The application of words, designs, and/or pictures to any substrate by means of a roll printing technique which involves a recessed image area. The recessed area is loaded with ink and pressed directly to the substrate for image transfer.

(31) Synthetic Organic Chemical Manufacturing Industry (SOCMI) batch

distillation operation - A SOCMI noncontinuous distillation operation in which a discrete quantity or batch of liquid feed is charged into a distillation unit and distilled at one time. After the initial charging of the liquid feed, no additional liquid is added during the distillation operation.

(32) Synthetic Organic Chemical Manufacturing Industry (SOCMI) batch process

- Any SOCMI noncontinuous reactor process which is not characterized by steady-state conditions, and in which reactants are not added and products are not removed simultaneously.

(33) Synthetic Organic Chemical Manufacturing Industry (SOCMI) distillation

operation - A SOCMI operation separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor-phase as they approach equilibrium within the distillation unit.

(34) Synthetic Organic Chemical Manufacturing Industry (SOCMI) distillation

unit - A SOCMI device or vessel in which distillation operations occur, including all associated internals (including, but not limited to, trays and packing), accessories (including, but not limited to, reboilers, condensers, vacuum pumps, and steam jets), and recovery devices (such as absorbers, carbon adsorbers, and condensers) which are capable of, and used for, recovering chemicals for use, reuse, or sale.

(35) Synthetic Organic Chemical Manufacturing Industry (SOCMI) reactor

process - A SOCMI unit operation in which one or more chemicals, or reactants other than air, are combined or decomposed in such a way, that their molecular structures are altered and one or more new organic compounds are formed.

(36) Synthetic organic chemical manufacturing process - A process that produces, as

intermediates or final products, one or more of the chemicals listed in Table I of this section.

(37) Tank-truck tank - Any storage tank having a capacity greater than 1,000 gallons,

mounted on a tank-truck or trailer. Vacuum trucks used exclusively for maintenance and spill response are not considered to be tank-truck tanks.

(38) Transport vessel - Any land-based mode of transportation (truck or rail) that is

equipped with a storage tank having a capacity greater than 1,000 gallons which is used primarily to transport oil, gasoline, or other volatile organic liquid bulk cargo. Vacuum trucks used exclusively for maintenance and spill response are not considered to be transport vessels.

(39) True partial pressure - The absolute aggregate partial pressure (psia) of all VOC

in a gas stream.

(40) **Vapor balance system** - A system which provides for containment of hydrocarbon vapors by returning displaced vapors from the receiving vessel back to the originating vessel.

(41) **Vapor combustor** - A partially enclosed combustion device, where the combustion flame may be partially visible, but at no time does the device operate with a fully visible flame. A vapor combustor is used to destroy VOCs to the destruction requirements defined in the applicable emission specifications and control requirements sections of this chapter by smokeless combustion without extracting energy in the form of process heat or steam. Auxiliary fuel and/or a flame air control damping system, which can operate at all times to control the air/fuel mixture to the combustor's flame zone, may be required to ensure smokeless combustion during operation.

(42) **Vapor control system** - Any control system which utilizes vapor collection equipment to route VOC to a control device that reduces VOC emissions.

(43) **Vapor recovery system** - Any control system which utilizes vapor collection equipment to route VOC to a control device that reduces VOC emissions.

(44) **Vapor-tight** - Not capable of allowing the passage of gases at the pressures encountered except where other acceptable leak-tight conditions are prescribed in the regulations.

(45) **Waxy, high pour point crude oil** - A crude oil with a pour point of 50 degrees Fahrenheit (10 degrees Celsius) or higher as determined by the American Society for Testing and Materials Standard D97-66, "Test for Pour Point of Petroleum Oils."

TABLE 1.
 SYNTHETIC ORGANIC CHEMICALS

OCPCB No.*	Chemical	OCPCB No.*	Chemical
20	Acetal	420	Benzilic acid
30	Acetaldehyde	430	Benzoic acid
40	Acetaldol	440	Benzoin
50	Acetamide	450	Benzonitrile
65	Acetanilide	460	Benzophenone
70	Acetic acid	480	Benzotrichloride
80	Acetic anhydride	490	Benzoyl chloride
90	Acetone	500	Benzyl alcohol
100	Acetone cyanohydrin	510	Benzyl amine
110	Acetonitrile	520	Benzyl benzoate
120	Acetophenone	530	Benzyl chloride
125	Acetyl chloride	540	Benzyl dichloride
130	Acetylene	550	Biphenyl
140	Acrolein	560	Bisphenol A
150	Acrylamide	570	Bromobenzene
160	Acrylic acid and esters	580	Bromonaphthalene
170	Acrylonitrile	590	Butadiene
180	Adipic acid	592	1-butene
185	Adiponitrile	600	n-butyl acetate
190	Alkyl naphthalenes	630	n-butyl acrylate
200	Allyl alcohol	640	n-butyl alcohol
210	Allyl chloride	650	s-butyl alcohol
220	Aminobenzoic acid	660	t-butyl alcohol
230	Aminoethylethanolamine	670	n-butylamine
235	p-Aminophenol	680	s-butylamine
240	Amyl acetates	690	t-butylamine
250	Amyl alcohols	700	p-tert-butyl benzoic acid
260	Amyl amine	710	1,3-butylene glycol
270	Amyl chloride	750	n-butyraldehyde
280	Amyl mercaptans	760	Butyric acid
290	Amyl phenol	770	Butyric anhydride
300	Aniline	780	Butyronitrile
310	Aniline hydrochloride	785	Caprolactam
320	Anisidine	790	Carbon disulfide
330	Anisole	800	Carbon tetrabromide

TABLE 1.
 SYNTHETIC ORGANIC CHEMICALS

OCPCB No.*	Chemical	OCPCB No.*	Chemical
900	Chlorobenzoic acid	1300	Diethylene glycol
905	Chlorobenzotrichloride	1304	Diethylene glycol diethyl ether
910	Chlorobenzoyl chloride	1305	Diethylene glycol dimethyl ether
920	Chlorodifluoroethane	1310	Diethylene glycol monobutyl ether
921	Chlorodifluoromethane	1320	Diethylene glycol monobutyl ether acetate
930	Chloroform		
940	Chloronaphthalene	1330	Diethylene glycol monoethyl ether
950	o-chloronitrobenzene	1340	Diethylene glycol monoethyl ether acetate
951	p-chloronitrobenzene		
960	Chlorophenols	1360	Diethylene glycol monomethyl ether
964	Chloroprene	1420	Diethyl sulfate
965	Chlorosulfonic acid	1430	Difluoroethane
970	m-chlorotoluene	1440	Diisobutylene
980	o-chlorotoluene	1442	Diisodecyl phthalate
990	p-chlorotoluene	1444	Diisooctyl phthalate
992	Chlorotrifluoromethane	1450	Dikethene
1000	m-cresol	1460	Dimethylamine
1010	o-cresol	1470	N,N-dimethylaniline
1020	p-cresol	1480	N,N-dimethyl ether
1021	Mixed cresols	1490	N,N-dimethylformamide
1030	Cresylic acid	1495	Dimethylhydrazine
1040	Crotonaldehyde	1500	Dimethyl sulfate
1050	Crotonic acid	1510	Dimethyl sulfide
1060	Cumene	1520	Dimethyl sulfoxide
1070	Cumene hydroperoxide	1530	Dimethyl terephthalate
1080	Cyanoacetic acid	1540	3,5-dinitrobenzoic acid
1090	Cyanogen chloride	1545	Dinitrophenol
1100	Cyanuric acid	1550	Dinitrotoluene
1110	Cyanuric chloride	1560	Dioxane
1120	Cyclohexane	1570	Dioxolane
1130	Cyclohexanol	1580	Diphenylamine
1140	Cyclohexanone	1590	Diphenyl oxide
1150	Cyclohexene	1600	Diphenyl thiourea
1160	Cyclohexylamine	1610	Dipropylene glycol
1170	Cyclooctadiene	1620	Dodecene

TABLE 1.
 SYNTHETIC ORGANIC CHEMICALS

OCPDB No.*	Chemical	OCPDB No.*	Chemical
1750	Ethyl chloroacetate	2261	Isobutylene
1760	Ethylcyanoacetate	2270	Isobutyraldehyde
1770	Ethylene	2280	Isobutyric acid
1780	Ethylene carbonate	2300	Isodecanol
1790	Ethylene chlorohydrin	2320	Isooctyl alcohol
1800	Ethylenediamine	2321	Isopentane
1810	Ethylene dibromide	2330	Isophorone
1830	Ethylene glycol	2340	Isophthalic acid
1840	Ethylene glycol diacetate	2350	Isoprene
1870	Ethylene glycol dimethyl ether	2360	Isopropanol
1890	Ethylene glycol monobutyl ether	2370	Isopropyl acetate
1900	Ethylene glycol monobutyl ether acetate	2380	Isopropylamine
1910	Ethylene glycol monoethyl ether	2390	Isopropyl chloride
1920	Ethylene glycol monoethyl ether acetate	2400	Isopropylphenol
1930	Ethylene glycol monomethyl ether	2410	Ketene
1940	Ethylene glycol monomethyl ether acetate	2414	Linear alkyl sulfonate
1960	Ethylene glycol monophenyl ether	2417	Linear alkylbenzene
1970	Ethylene glycol monopropyl ether	2420	Maleic acid
1980	Ethylene oxide	2430	Maleic anhydride
1990	Ethyl ether	2440	Malic acid
2000	2-ethylhexanol	2450	Mesityl oxide
2010	Ethyl orthoformate	2455	Metanilic acid
2020	Ethyl oxalate	2460	Methacrylic acid
2030	Ethyl sodium oxalacetate	2490	Methallyl chloride
2040	Formaldehyde	2500	Methanol
2050	Formamide	2510	Methyl acetate
2060	Formic acid	2520	Methyl acetoacetate
2070	Fumaric acid	2530	Methylamine
2073	Furfural	2540	n-methylaniline
2090	Glycerol (Synthetic)	2545	Methyl bromide
2091	Glycerol dichlorohydrin	2550	Methyl butynol
2100	Glycerol triether	2560	Methyl chloride
		2570	Methyl cyclohexane
		2590	Methyl cyclohexanone
		2620	Methylene chloride

TABLE 1.
 SYNTHETIC ORGANIC CHEMICALS

OCPDB No.*	Chemical	OCPDB No.*	Chemical
2750	Neopentanoic acid	3170	Salicylic acid
2756	o-nitroaniline	3180	Sodium acetate
2757	p-nitroaniline	3181	Sodium benzoate
2760	o-nitroanisole	3190	Sodium carboxymethyl cellulose
2762	p-nitroanisole	3191	Sodium chloracetate
2770	Nitrobenzene	3200	Sodium formate
2780	Nitrobenzoic acid (o, m, and p)	3210	Sodium phenate
2790	Nitroethane	3220	Sorbic acid
2791	Nitromethane	3230	Styrene
2792	Nitrophenol	3240	Succinic acid
2795	Nitropropane	3250	Succinonitrile
2800	Nitrotoluene	3251	Sulfanilic acid
2810	Nonene	3260	Sulfolane
2820	Nonyl phenol	3270	Tannic acid
2830	Octyl phenol	3280	Terephthalic acid
2840	Paraldehyde	3290	
2850	Pentaerythritol	3291	Tetrachloroethanes
2851	n-pentane	3300	Tetrachlorophthalic anhydride
2855	l-pentene	3310	Tetraethyllead
2860	Perchloroethylene	3320	Tetrahydronaphthalene
2882	Perchloromethyl mercaptan	3330	Tetrahydrophthalic anhydride
2890	o-phenetidine	3335	Tetramethyllead
2900	p-phenetidine	3340	Tetramethylenediamine
2910	Phenol	3341	Tetramethylethylenediamine
2920	Phenolsulfonic acids	3350	Toluene-2,4-diamine
2930	Phenyl anthranilic acid	3354	Toluene-2,4-diisocyanate
2940	Phenylenediamine	3355	Toluene diisocyanates (mixture)
2950	Phosgene	3360	Toluene sulfonamide
2960	Phthalic anhydride	3370	Toluene sulfonic acids
2970	Phthalimide	3380	Toluene sulfonyl chloride
2973	B-picoline	3381	Toluidines
2976	Piperazine	3390	
3000	Polybutenes	3391	
3010	Polyethylene glycol	3393	Trichlorobenzenes
3025	Polypropylene glycol	3395	1,1,1-trichloroethane

TABLE 1.
SYNTHETIC ORGANIC CHEMICALS

OCADB No.*	Chemical	OCADB No.*	Chemical
3530	Vinylidene chloride		
3540	Vinyl toluene		
3541	Xylenes (mixed)		
3560	o-xylene		
3570	p-xylene		
3580	Xylenol		
3590	Xylidine		

*The OCADB Numbers are reference indices assigned to the various chemicals in the Organic Chemical Producers Data Base developed by EPA.

SUBCHAPTER C : VOLATILE ORGANIC COMPOUND TRANSFER OPERATIONS

DIVISION 1 : LOADING AND UNLOADING OF

VOLATILE ORGANIC COMPOUNDS

§§115.211 - 115.217, 115.219

STATUTORY AUTHORITY

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission (commission) with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

§115.211. Emission Specifications.

The owner or operator of each gasoline terminal and gasoline bulk plant in the covered attainment counties and in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, as defined in §115.10 of this title (relating to Definitions), shall ensure that VOC emissions from gasoline transfer do not exceed the following rates:

(1) from the vapor control system vent at gasoline terminals:

(A) in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, 0.09 pound per 1,000 gallons (10.8 mg/liter) of gasoline loaded into transport vessels.

(B) in the covered attainment counties, 0.17 pound per 1,000 gallons (20 mg/liter) of gasoline loaded into transport vessels. Until April 30, 2000 in Gregg, Nueces, and Victoria Counties, VOC emissions shall not exceed 0.67 pound per 1,000 gallons (80 mg/liter) of gasoline loaded into transport vessels.

(2) at gasoline bulk plants, 1.2 pounds per 1,000 gallons (140 mg/liter) of gasoline transferred into transport vessels or storage tanks.

§115.212. Control Requirements.

(a) The owner or operator of each volatile organic compound (VOC) transfer operation, transport vessel, and marine vessel in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall comply with the following control requirements.

(1) General VOC loading. At VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals, vapors from the transport vessel caused by the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia under actual storage conditions must be controlled by:

(A) a vapor control system which maintains a control efficiency of at least 90%; or

(B) a vapor balance system, as defined in §115.10 of this title (relating to Definitions); or

(C) pressurized loading.

(2) Disposal of transported vapors. After unloading, transport vessels must be kept vapor-tight until the vapors in the transport vessel are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation.

(3) Leak-free requirements. All land-based loading and unloading of VOC shall be conducted such that:

(A) All liquid and vapor lines are:

(i) equipped with fittings which make vapor-tight connections that close automatically when disconnected; or

(ii) equipped to permit residual VOC after transfer is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor control system or a vapor balance system. After VOC transfer, if necessary to empty a liquid line, the contents may be placed in a portable container, which is then closed vapor-tight and disposed of properly.

(B) There are no VOC leaks, as defined in §101.1 of this title (relating to Definitions), when measured with a hydrocarbon gas analyzer, and no liquid or vapor leaks, as detected by sight, sound, or smell, from any potential leak source in the transport vessel and transfer system (including, but not limited to, liquid lines, vapor lines, hatch covers, pumps, and valves, including pressure relief valves).

(C) All gauging and sampling devices are vapor-tight except for necessary gauging and sampling. Any nonvapor-tight gauging and/or sampling shall:

(i) be limited in duration to the time necessary to practicably gauge and/or sample; and

(ii) not occur while VOC is being transferred.

(D) Any openings in a transport vessel during unloading are limited to minimum openings which are sufficient to prevent collapse of the transport vessel.

(E) If VOC is loaded through the hatches of a transport vessel, then pneumatic, hydraulic, or other mechanical means shall force a vapor-tight seal between the loading arm's vapor collection adapter and the hatch. A means shall be provided which prevents liquid drainage from the loading device when it is removed from the hatch of any transport vessel, or which routes all VOC emissions to a vapor control system. After VOC transfer, if necessary to empty a liquid line, the

contents may be placed in a portable container, which is then closed vapor-tight and disposed of properly.

(4) Gasoline terminals. The following additional control requirements apply to the transfer of gasoline at gasoline terminals.

(A) A vapor control system must be used to control the vapors from loading each transport vessel.

(B) Vapor control systems and loading equipment at gasoline terminals shall be designed and operated such that gauge pressure does not exceed 18 inches of water and vacuum does not exceed six inches of water in the gasoline tank-truck.

(C) Each gasoline terminal shall be equipped with sensors and other equipment designed and connected to monitor the status of the control device, and to monitor either a positive coupling of the vapor return line to the transport vessel or the presence of vapor flow in the vapor return line between the transport vessel and the terminal's vapor collection system.

(i) If the control device malfunctions or is not operational, the system shall automatically stop gasoline transfer to the transport vessel(s) immediately.

(ii) If the vapor return line is not connected during gasoline transfer,

then:

(I) systems which monitor for a positive coupling of the vapor return line to the transport vessel shall automatically stop the transfer of gasoline to the transport vessel in that loading bay immediately; and

(II) systems which monitor for the presence of vapor flow shall allow no more than one minute of gasoline transfer to occur before automatically stopping the transfer of gasoline to the transport vessel in that loading bay.

(D) As an alternative to subparagraph (C) of this paragraph, the following requirements apply to gasoline terminals which have a variable vapor space holding tank design that can process the vapors independent of transport vessel loading. Such gasoline terminals shall be equipped with sensors and other equipment designed and connected to monitor the status of the control device, and to monitor either a positive coupling of the vapor return line to the transport vessel or the presence of vapor flow in the vapor return line between the transport vessel and the terminal's vapor collection system.

(i) If the variable vapor space holding tank serving the loading rack(s) does not have the capacity to store additional vapors for processing by the control device at a later time

and the control device malfunctions or is not operational, the system shall automatically stop gasoline transfer to the transport vessel(s) immediately.

(ii) If the vapor return line is not connected during gasoline transfer, then:

(I) systems which monitor for a positive coupling of the vapor return line to the transport vessel shall automatically stop the transfer of gasoline to the transport vessel in that loading bay immediately; and

(II) systems which monitor for the presence of vapor flow shall allow no more than one minute of gasoline transfer to occur before automatically stopping the transfer of gasoline to the transport vessel in that loading bay.

(E) As an alternative to subparagraphs (C) and (D) of this paragraph, gasoline terminals in the Beaumont/Port Arthur area may comply with subsection (b)(4)(C) or (D) of this section.

(5) Gasoline bulk plants. The following additional control requirements apply to transfer of gasoline at gasoline bulk plants.

(A) A vapor balance system must be used between the storage tank and transport vessel. Alternatively, a vapor control system which maintains a control efficiency of at least 90% may be used to control the vapors.

(B) While filling a transport vessel from a storage tank:

(i) the transport vessel, if equipped for top loading, must use a submerged fill pipe; and

(ii) gauge pressure must not exceed 18 inches of water and vacuum must not exceed six inches of water in the gasoline tank-truck tank.

(6) Marine terminals. The following control requirements apply to marine terminals in the Houston/Galveston area.

(A) VOC emissions shall not exceed 0.09 pound from the vapor control system vent per 1,000 gallons (10.8 mg/liter) of VOC loaded into the marine vessel, or the vapor control system shall maintain a control efficiency of at least 90%. Alternatively, a vapor balance system or pressurized loading may be used to control the vapors.

(B) Only leak-free marine vessels, as defined in §115.10 of this title, shall be used for loading operations.

(C) All gauging and sampling devices shall be vapor-tight except for necessary gauging and sampling. Any nonvapor-tight gauging and/or sampling shall:

(i) be limited in duration to the time necessary to practicably gauge and/or sample; and

(ii) not occur while VOC is being transferred.

(D) When non-dedicated loading lines are used to load VOC with a true vapor pressure less than 0.5 psia (or a flash point of 150 degrees Fahrenheit or greater) and the preceding transfer through these lines was VOC with a true vapor pressure equal to or greater than 0.5 psia, the residual VOC vapors from this preceding transfer must be controlled by the vapor control system, vapor balance system, or pressurized loading as specified in subparagraph (A) of this paragraph.

(7) Once-in-always-in. Any loading or unloading operation that becomes subject to the provisions of this subsection by exceeding provisions of §115.217(a) of this title (relating to Exemptions) will remain subject to the provision 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 §115.217(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 exemption from permitting required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification; and Exemptions from Permitting). If an exemption from permitting is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that exemption from permitting; or

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

(b) The owner or operator of each land-based VOC transfer operation and transport vessel in the covered attainment counties shall comply with the following control requirements.

(1) General VOC loading in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties. At VOC loading operations other than gasoline terminals and gasoline bulk plants, vapors from the transport vessel caused by the loading of VOC with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions must be controlled by:

(A) a vapor control system which maintains a control efficiency of at least 90%;

(B) a vapor balance system, as defined in §115.10 of this title; or

(C) pressurized loading.

(2) Disposal of transported vapors. After unloading, transport vessels must be kept vapor-tight until the vapors in the transport vessel are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation.

(3) Leak-free requirements. All land-based loading and unloading of VOC shall be conducted such that:

(A) all liquid and vapor lines are:

(i) equipped with fittings which make vapor-tight connections and that close automatically when disconnected; or

(ii) equipped to permit residual VOC after transfer is complete to discharge into a recovery or disposal system which routes all VOC emissions to a vapor control system or a vapor balance system. After VOC transfer, if necessary to empty a liquid line, the contents may be placed in a portable container, which is then closed vapor-tight and disposed of properly.

(B) there are no VOC leaks, as defined in §101.1 of this title, when measured with a hydrocarbon gas analyzer, and no liquid or vapor leaks, as detected by sight, sound, or smell, from any potential leak source in the transport vessel and transfer system (including, but not limited to, liquid lines, vapor lines, hatch covers, pumps, and valves, including pressure relief valves);

(C) all gauging and sampling devices are vapor-tight except for necessary gauging and sampling. Any nonvapor-tight gauging and/or sampling shall:

(i) be limited in duration to the time necessary to practicably gauge and/or sample; and

(ii) not occur while VOC is being transferred;

(D) any openings in a transport vessel during unloading are limited to minimum openings which are sufficient to prevent collapse of the transport vessel;

(E) if VOC is loaded through the hatches of a transport vessel, then pneumatic, hydraulic, or other mechanical means shall force a vapor-tight seal between the loading arm's vapor collection adapter and the hatch. A means shall be provided which prevents liquid drainage from the loading device when it is removed from the hatch of any transport vessel, or which routes all VOC emissions to a vapor control system. After VOC transfer, if necessary to empty a liquid line, the

contents may be placed in a portable container, which is then closed vapor-tight and disposed of properly.

(4) Gasoline terminals. The following additional control requirements apply to gasoline transfer at gasoline terminals.

(A) A vapor control system must be used to control the vapors from loading the transport vessel.

(B) Vapor control systems and loading equipment at gasoline terminals shall be designed and operated such that gauge pressure does not exceed 18 inches of water and vacuum does not exceed six inches of water in the gasoline tank-truck.

(C) Each gasoline terminal shall be equipped with sensors and other equipment designed and connected to monitor the status of the control device. If the control device malfunctions or is not operational, the system shall automatically stop gasoline transfer to the transport vessel(s) immediately.

(D) As an alternative to subparagraph (C) of this paragraph, the following requirements apply to gasoline terminals which have a variable vapor space holding tank design that can process the vapors independent of transport vessel loading. Such gasoline terminals shall be equipped with sensors and other equipment designed and connected to monitor the status of the control device. If

the variable vapor space holding tank serving the loading rack(s) does not have the capacity to store additional vapors for processing by the control device at a later time and the control device malfunctions or is not operational, the system shall automatically stop gasoline transfer to the transport vessel(s) immediately.

(5) Gasoline bulk plants. The following additional control requirements apply to gasoline transfer at gasoline bulk plants.

(A) A vapor balance system must be used between the storage tank and transport vessel. Alternatively, a vapor control system which maintains a control efficiency of at least 90% may be used to control the vapors.

(B) While filling a transport vessel from a storage tank:

(i) the transport vessel, if equipped for top loading, must use a submerged fill pipe; and

(ii) gauge pressure must not exceed 18 inches of water and vacuum must not exceed six inches of water in the gasoline tank-truck tank.

§115.213. Alternate Control Requirements.

(a) Alternate means of control. Alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division (relating to Loading and Unloading of Volatile Organic Compounds) 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.

(b) General volatile organic compound (VOC) loading - 90% overall control option in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas. As an alternative to §115.212(a)(1) of this title (relating to Control Requirements), VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals may elect to achieve a 90% overall control of emissions at the account from the loading of VOC (excluding loading into marine vessels and loading at gasoline terminals and gasoline bulk plants) with a true vapor pressure equal to or greater than 0.5 psia, but less than 11 psia, under actual storage conditions, provided that the following requirements are met.

(1) To qualify for the control option available under this subsection after December 31, 1996, the owner or operator of a VOC loading operation for which a control plan was not previously submitted shall submit a control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure greater than or equal to

0.5 psia, but less than 11 psia, under actual storage conditions will be at least 90%. Any control plan submitted after December 31, 1996, must be approved by the executive director before the owner or operator may use the control option available under this subsection for compliance. For each loading rack and any associated control device at the account, the control plan shall include the emission point number (EPN), the facility identification number (FIN), the throughput of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, the controlled and uncontrolled emission rates for the preceding calendar year, and an explanation of the recordkeeping procedure and calculations which will be used to demonstrate compliance.

(2) The owner or operator of the VOC loading operation shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the account from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions during the preceding calendar year is at least 90%. For each loading rack and any associated control device at the account, the report shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each loading rack and any associated control device, and the controlled and uncontrolled emission rates for the preceding calendar year.

(3) The owner or operator of the VOC loading operation shall submit an updated report no later than 30 days after the installation of an additional loading rack(s) or any change in service of a loading rack(s) from loading VOC with a true vapor pressure less than 0.5 psia to loading VOC with a true vapor pressure greater than or equal to 0.5 psia, or vice versa. The report shall be submitted to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction and shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions continues to be at least 90%.

(4) All representations in control plans and annual reports become enforceable conditions. It shall be unlawful for any person to vary from such representations if the variation will cause a change in the identity of the specific emission sources being controlled or the method of control of emissions unless the owner or operator of the VOC loading operation submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction no later than 30 days after the change. All control plans and reports shall demonstrate that the overall control of emissions at the account from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions continues to be at least 90%. The emission rates shall be calculated in a manner consistent with the most recent emissions inventory.

(5) The loading of VOC with a true vapor pressure greater than or equal to 11 psia under actual storage conditions must be controlled by:

(A) pressurized loading;

(B) a vapor control system which maintains a control efficiency of at least 90%; or

(C) a vapor balance system, as defined in §115.10 of this title (relating to Definitions).

(6) A VOC loading operation which, under the 90% control option of this subsection, is not required to control vapors caused by loading VOC into a transport vessel is likewise not required to comply with:

(A) §115.212(a)(3)(A) and (C) of this title; or

(B) §115.214(a)(1)(A)(ii) and (iii) and (C) of this title (relating to Inspection Requirements).

(c) General VOC loading - 90% overall control option in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties. As an alternative to §115.212(b)(1) of this title, VOC loading operations other than gasoline terminals, gasoline bulk plants, and marine terminals may elect to achieve a 90% overall control of emissions at the account from the loading of VOC (excluding loading into marine vessels and loading at gasoline terminals and gasoline bulk plants)

with a true vapor pressure greater than or equal to 1.5 psia, but less than 11 psia, under actual storage conditions.

(A) Each VOC loading operation using this control option shall meet the requirements of subsection (b)(1)-(5) of this section, except that 1.5 psia shall be substituted for 0.5 psia in these paragraphs.

(B) A VOC loading operation which, under the 90% control option of this subsection, is not required to control vapors caused by loading VOC into a transport vessel is likewise not required to comply with:

(i) §115.212(b)(3)(A) and (C) of this title; or

(ii) §115.214(b)(1)(A)(ii) and (iii) and (C) of this title.

(d) Marine vessel loading - 90% control option. As an alternative to §115.212(a)(6)(A) of this title, marine terminals may elect to achieve a 90% overall control of emissions at the marine terminal from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions into marine vessels, provided that the following requirements are met.

(1) To qualify for the control option available under this subsection after December 31, 1996, the owner or operator of a marine terminal for which a control plan was not previously submitted shall submit a control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the marine terminal from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions into marine vessels will be at least 90%. Any control plan submitted after December 31, 1996 must be approved by the executive director before the owner or operator may use the control option available under this subsection for compliance. For each marine loading facility and any associated control device at the marine terminal, the control plan shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each marine loading facility and any associated control device, the controlled and uncontrolled emission rates for the preceding calendar year, and an explanation of the recordkeeping procedure and calculations which will be used to demonstrate compliance.

(2) The owner or operator of the marine terminal shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of emissions at the marine terminal from the loading of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions into marine vessels during the preceding calendar year is at least 90%. For each marine loading facility and any associated control device at the

account, the report shall include the EPN, the FIN, the throughput of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions for the preceding calendar year, a plot plan showing the location, EPN, and FIN of each marine loading facility and any associated control device, and the controlled and uncontrolled emission rates for the preceding calendar year.

(3) All representations in control plans and annual reports become enforceable conditions. It shall be unlawful for any person to vary from such representations if the variation will cause a change in the identity of the specific emission sources being controlled or the method of control of emissions unless the owner or operator of the marine terminal submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction no later than 30 days after the change. All control plans and reports shall demonstrate that the overall control of emissions at the marine terminal from the loading into marine vessels of VOC with a true vapor pressure greater than or equal to 0.5 psia, but less than 11 psia, under actual storage conditions continues to be at least 90%. The emission rates shall be calculated in a manner consistent with the most recent emissions inventory.

(4) The loading of VOC with a true vapor pressure greater than 11 psia under actual storage conditions must be controlled by:

(A) pressurized loading;

(B) a vapor control system which maintains a control efficiency of at least 90%; or

(C) a vapor balance system, as defined in §115.10 of this title.

(5) A marine loading operation which, under the 90% control option of this subsection, is not required to control vapors caused by loading VOC into a marine vessel is likewise not required to comply with:

(A) §115.212(a)(6)(B)-(D) of this title; or

(B) §115.214(a)(3)(A), (B)(ii) and (iii), and (D) of this title.

§115.214. Inspection Requirements.

(a) The owner or operator of each volatile organic compound (VOC) transfer operation in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall comply with the following inspection requirements.

(1) Land-based VOC transfer.

(A) During each VOC transfer, the owner or operator of the transfer operation or of the transport vessel shall inspect for:

(i) visible liquid leaks;

(ii) visible fumes; and

(iii) significant odors.

(B) 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.

(C) All tank-truck tanks being filled with or emptied of gasoline, or being filled with non-gasoline VOC having a true vapor pressure greater than or equal to 0.5 pounds per square inch absolute under actual storage conditions, shall have been leak tested within one year in accordance with the requirements of §§115.234-115.237 of this title (relating to Control of Volatile Organic Compound Leaks From Transport Vessels) as evidenced by prominently displayed certification affixed near the United States Department of Transportation certification plate.

(D) Subparagraphs (A) and (B) of this paragraph do not apply to fumes from hatches or vents if the fumes result from:

(i) a VOC transfer which is exempt from §115.211 or §115.212(a)(1) of this title (relating to Emission Specifications; and Control Requirements) under §115.217(a) of this title (relating to Exemptions); or

(ii) a VOC loading operation which, under the 90% control option in §115.213(b) of this title (relating to Alternate Control Requirements), is not required to control vapors caused by loading VOC.

(2) Gasoline terminals - additional inspection. The owner or operator of each gasoline terminal shall perform a monthly leak inspection of all equipment in gasoline service. Each piece of equipment shall be inspected during the loading of gasoline tank-trucks. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Alternatively, a hydrocarbon gas analyzer may be used for the detection of leaks, by meeting the requirements of §§115.352-115.357 of this title (relating to Fugitive Emission Control in Petroleum Refining, Natural Gas/Gasoline Processing, and Petrochemical Processes in Ozone Nonattainment Areas). Every reasonable effort shall be made to repair or replace a leaking component within 15 days after a leak is found. If the repair or replacement of a leaking component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown.

(3) Marine terminals. For marine terminals in the Houston/Galveston area, the following inspection requirements apply.

(A) Before loading a marine vessel with a VOC which has a vapor pressure equal to or greater than 0.5 pounds per square inch absolute under actual storage conditions, the owner or operator of the marine terminal shall verify that the marine vessel has passed an annual vapor tightness test as specified in §115.215(7) of this title (relating to Approved Test Methods). If no documentation of the annual vapor tightness test is available, one of the following methods may be substituted.

(i) VOC shall be loaded into the marine vessel with the vessel product tank at negative gauge pressure.

(ii) Leak testing shall be performed during loading using Test Method 21. The testing shall be conducted during the final 20% of loading of each product tank of the marine vessel and shall be applied to any potential sources of vapor leaks on the vessel.

(iii) Documentation of leak testing conducted during the preceding 12 months as described in clause (ii) of this subparagraph shall be provided.

(B) During each VOC transfer, the owner or operator of the marine terminal or of the marine vessel shall inspect for:

(i) visible liquid leaks;

(ii) visible fumes; and

(iii) significant odors.

(C) If a liquid leak is detected during VOC transfer and cannot be repaired immediately (for example, by tightening a bolt or packing gland), then the transfer operation shall cease until the leak is repaired.

(D) If a vapor leak is detected by sight, sound, smell, or hydrocarbon gas analyzer during the VOC loading operation, then a "first attempt" shall be made to repair the leak. VOC loading operations need not be ceased if the first attempt to repair the leak, as defined in §101.1 of this title (relating to Definitions), to less than 10,000 parts per million by volume (ppmv) or 20% of the lower explosive limit, is not successful provided that the first attempt effort is documented by the owner or operator of the marine vessel as soon as practicable and a copy of the repair log made available to a representative of the marine terminal. No additional loadings shall be made into the cargo tank until a successful repair has been completed and an inspection conducted under 40 Code of Federal Regulations 61.304(f) or 63.565(c).

(E) The intentional bypassing of a vapor control device during marine loading operations is prohibited.

(F) All shore-based equipment is subject to the fugitive emissions monitoring requirements of §§115.352-115.357 of this title. For the purposes of this paragraph, shore-based equipment includes, but is not limited to, all equipment such as loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves between the marine loading facility and the vapor control system and between the marine loading facility and the associated land-based storage tanks, excluding working emissions from the storage tanks.

(G) Subparagraphs (B) and (D) of this paragraph do not apply to fumes from hatches or vents if the fumes result from:

(i) a VOC transfer which is exempt from §115.212(a)(6)(A) of this title under §115.217(a)(5) of this title; or

(ii) a VOC loading operation which, under the 90% control option in §115.213(d) of this title, is not required to control vapors caused by loading VOC.

(b) The owner or operator of each VOC transfer operation in the covered attainment counties shall comply with the following inspection requirements.

(1) Land-based VOC transfer. At all VOC transfer operations in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties, and at gasoline terminals and gasoline bulk plants in the covered attainment counties:

(A) During each VOC transfer, the owner or operator of the transfer operation or of the transport vessel shall inspect for:

(i) visible liquid leaks;

(ii) visible fumes; and

(iii) significant odors.

(B) 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.

(C) All tank-truck tanks being filled with or emptied of gasoline shall have been leak tested within one year in accordance with the requirements of §§115.234-115.237 of this title as evidenced by prominently displayed certification affixed near the United States Department of Transportation certification plate.

(D) Subparagraphs (A) and (B) of this paragraph do not apply to fumes from hatches or vents if the fumes result from:

(i) a VOC transfer which is exempt from §115.211 or §115.212(b)(1) of this title under §115.217(b) of this title; or

(ii) a VOC loading operation which, under the 90% control option in §115.213(b) of this title, is not required to control vapors caused by loading VOC.

(2) Gasoline terminals - additional inspection. The owner or operator of each gasoline terminal shall perform a monthly leak inspection of all equipment in gasoline service. Each piece of equipment shall be inspected during the loading of gasoline tank-trucks. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Alternatively, a hydrocarbon gas analyzer may be used for the detection of leaks, by meeting the requirements of §§115.352-115.357 of this title. Every reasonable effort shall be made to repair or replace a leaking component within 15 days after a leak is found. If the repair or replacement of a leaking component would require a unit shutdown, the repair may be delayed until the next scheduled shutdown.

§115.215. Approved Test Methods.

Compliance with the emission specifications, vapor control system efficiency, and certain control requirements, inspection requirements, and exemption criteria of §§115.211-115.214 and 115.217 of this title (relating to Loading and Unloading of Volatile Organic Compounds) shall be determined by applying one or more of the following test methods and procedures, as appropriate.

(1) Flow rate. Test Methods 1-4 (40 Code of Federal Regulations (CFR) 60, Appendix A) are used for determining flow rates, as necessary.

(2) Concentration of volatile organic compounds (VOC).

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

(B) Test Method 25 (40 CFR 60, Appendix A) is used for determining total gaseous nonmethane organic emissions as carbon.

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

(3) Performance requirements for flares and vapor combustors.

(A) For flares, the performance test requirements of 40 CFR 60.18(b) shall apply.

(B) For vapor combustors, the owner or operator may consider the unit to be a flare and meet the performance test requirements of 40 CFR 60.18(b) rather than the procedures of paragraphs (1) and (2) of this section.

(C) Compliance with the requirements of 40 CFR 60.18(b) will be considered to demonstrate compliance with the emission specifications and control efficiency requirements of §115.211 and §115.212 of this title (relating to Emission Specifications; and Control Requirements).

(4) Vapor pressure. Use standard reference texts or American Society for Testing and Materials (ASTM) Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of vapor pressure.

(5) Leak determination by instrument method. Use Test Method 21 (40 CFR 60, Appendix A) for determining VOC leaks.

(6) Gasoline terminal test procedures. Use the additional test procedures described in 40 CFR 60.503 b, c, and d, for pre-test leak determination, emission specifications test for vapor control systems, and pressure limit in transport vessel, respectively.

(7) Vapor-tightness test procedures for marine vessels. Use 40 CFR 63.565(c) (effective September 19, 1995) or 40 CFR 61.304(f) (effective April 3, 1990) for determination of marine vessel vapor tightness.

(8) Flash point. Use ASTM Test Method D93 for the measurement of flash point.

(9) Minor modifications. Minor modifications to these test methods may be used, if approved by the executive director.

(10) Alternate test methods. Test methods other than those specified in paragraphs (1)-(8) of this section (relating to Approved Test Methods) may be used if validated by 40 CFR 63, Appendix A, Test Method 301 (effective December 29, 1992). For the purposes of this paragraph, substitute "executive director" each place that Test Method 301 references "administrator."

§115.216. Monitoring and Recordkeeping Requirements.

The owner or operator of each volatile organic compound (VOC) loading or unloading operation in the covered attainment counties or in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall maintain the following information for at least two years at the plant, as defined by its air quality account number. The owner or operator shall make the information available upon request to representatives of the executive director, EPA, or any local air pollution control agency having jurisdiction in the area.

(1) Vapor control systems. For vapor control systems used to control emissions from VOC transfer operations, records of appropriate parameters to demonstrate compliance, including:

(A) continuous monitoring and recording of:

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

(ii) the inlet and outlet gas temperature of a chiller or catalytic incinerator;

(iii) the exhaust gas VOC concentration of a carbon adsorption system, as defined in §101.1 of this title (relating to Definitions); and

(iv) the exhaust gas temperature immediately downstream of a vapor combustor. Alternatively, the owner or operator of a vapor combustor may consider the unit to be a flare and meet the requirements of subparagraph (B) of this paragraph;

(B) the requirements specified in 40 Code of Federal Regulations 60.18(b) and Chapter 111 of this title (relating to Control of Air Pollution from Visible Emissions and Particulate Matter) for flares; and

(C) for vapor control systems other than those specified in subparagraphs (A) and (B) of this paragraph, records of appropriate operating parameters.

(2) Test results. A record of the results of any testing conducted in accordance with §115.215 of this title (relating to Approved Test Methods).

(3) Land-based VOC transfer to or from transport vessels.

(A) A daily record of:

(i) the identification number of each tank-truck tank;

(ii) the quantity of VOC loaded into each transport vessel; and

(iii) the date of the last leak testing of each tank-truck tank as required by §115.214(a)(1)(C) or (b)(1)(C) of this title (relating to Inspection Requirements).

(B) A record of the type and vapor pressure of each VOC transferred (excluding gasoline).

(C) The owner or operator of any plant, as defined by its air quality account number, at which all VOC transferred has a true vapor pressure at actual storage conditions less than 0.5 psia as specified in §115.217(a)(1) of this title (relating to Exemptions) or 1.5 psia as specified in §115.217(b)(1) of this title, is not required to keep the records specified in subparagraph (A) of this paragraph.

(D) The owner or operator of any plant, as defined by its air quality account number, that is exempt under §115.217(a)(2)(A) or (B), or §115.217(b)(3)(A) or (B) of this title based upon gallons per day transferred shall maintain a daily record of the total throughput of gasoline or of VOC equal to or greater than 0.5 or 1.5 psia vapor pressure, as appropriate, loaded into transport vessels at the plant.

(E) For gasoline terminals, records of the results of the fugitive monitoring and maintenance program required by §115.214(a)(2) and (b)(2) of this title:

(i) a description of the types, identification numbers, and locations of all equipment in gasoline service;

(ii) the date of each monthly inspection;

(iii) the results of each inspection;

(iv) the location, nature, severity, and method of detection for each leak;

(v) the date each leak is repaired and explanation if repair is delayed beyond 15 days;

(vi) a list identifying those leaking components which cannot be repaired or replaced until a scheduled unit shutdown; and

(vii) the inspector's name and signature.

(4) Marine terminals. For marine terminals in the Houston/Galveston area:

(A) a daily record of all marine vessels loaded at the affected terminal, including:

(i) the name, registry of the marine vessel, and the legal owner or operator of the marine vessel;

(ii) the chemical name and amount of VOC cargo loaded; and

(iii) the conditions of the tanks prior to being loaded (i.e., cleaned, crude oil washed, gas freed, etc.) and the prior cargo carried by the marine vessel;

(B) a copy of each marine vessel's vapor tightness test documentation or records documenting compliance with the alternate methods specified in §115.214(a)(3)(A) of this title;

(C) a copy of each marine vessel's first attempt repair log required by §115.214(a)(3)(D) of this title;

(D) records of the results of the fugitive monitoring and maintenance program required by §115.214(a)(3)(F) of this title, including appropriate dates, test methods, instrument readings, repair results, and corrective action taken. Records of flange inspections are not required unless a leak is detected.

§115.217. Exemptions.

(a) The following exemptions apply in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas.

(1) Vapor pressure (at land-based operations). All land-based loading and unloading of volatile organic compounds (VOC) with a true vapor pressure less than 0.5 pounds per square inch, absolute (psia) under actual storage conditions is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(A) §115.212(a)(2) of this title (relating to Control Requirements);

(B) §115.214(a)(1)(A)(i) and (B) of this title (relating to Inspection Requirements);

(C) §115.215(4) of this title (relating to Approved Test Methods); and

(D) §115.216(2) and (3)(B) of this title (relating to Monitoring and Recordkeeping Requirements).

(2) Throughput.

(A) Any plant, as defined by its air quality account number, excluding gasoline bulk plants, which loads less than 20,000 gallons of VOC into transport vessels per day (averaged over each consecutive 30-day period) with a true vapor pressure greater than or equal to 0.5 psia under actual storage conditions is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(i) §115.212(a)(2) of this title;

(ii) §115.214(a)(1)(A)(i) and (B) of this title;

(iii) §115.215(4) of this title; and

(iv) §115.216(2), (3)(B), and (3)(D) of this title.

(B) Gasoline bulk plants which load less than 4,000 gallons of gasoline into transport vessels per day (averaged over each consecutive 30-day period) are exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(i) §115.212(a)(2) of this title;

(ii) §115.214(a)(1)(A)(i) and (B) of this title; and

(iii) §115.216(3)(D) of this title.

(3) Liquefied petroleum gas. All loading and unloading of liquefied petroleum gas is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(A) §115.212(a)(2) of this title;

(B) §115.214(a)(1)(A)(i) and (B) of this title; and

(C) §115.216(3) of this title.

(4) Motor vehicle fuel dispensing facilities. Motor vehicle fuel dispensing facilities, as defined in §101.1 of this title (relating to Definitions), are exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds).

(5) Marine vessels. The following marine vessel transfer exemptions apply.

(A) The following marine vessel transfer operations are exempt from this division (relating to Loading and Unloading of Volatile Organic Compounds):

(i) all loading and unloading of marine vessels in ozone nonattainment areas other than the Houston/Galveston area; and

(ii) transfer of VOC from one marine vessel to another marine vessel ("lightering"), provided that the VOC transfer does not use loading arm(s), pump(s), meter(s), valve(s), or piping that are part of a marine terminal.

(B) The following marine vessel transfer operations are exempt from the requirements of §§115.212(a), 115.214(a), and 115.216 of this title, except as noted:

(i) all unloading of marine vessels, except for §115.214(a)(3)(B)(i) and (C) and §115.216(2) of this title;

(ii) marine terminals with uncontrolled marine loading VOC emissions less than 100 tons per year, except for §115.214(a)(3)(B)(i) and (C) and §115.216(2) of this title. Emissions from marine vessel loading operations which were routed to a control device that was installed as of November 15, 1993, are excluded from this calculation. Compliance with this exemption shall be demonstrated through the recordkeeping and reporting requirements of the annual emissions inventory submitted by the owner or operator of the marine terminal;

(iii) all throughput of VOC with a vapor pressure less than 0.5 psia loaded into marine vessels, except for §§115.212(a)(6)(D), 115.214(a)(3)(B)(i) and (C), and 115.216(2) of this title; and

(iv) all throughput of VOC with a flash point of 150 degrees Fahrenheit or greater loaded into marine vessels, except for §§115.212(a)(6)(D), 115.214(a)(3)(B)(i) and (C), and 115.216(2) of this title.

(b) The following exemptions apply in the covered attainment counties.

(1) General VOCs (non-gasoline). Except in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties, all loading and unloading of VOC other than gasoline is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds).

(2) Vapor pressure (at land-based operations). All land-based loading and unloading of VOC with a true vapor pressure less than 1.5 psia under actual storage conditions is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(A) §115.212(b)(2) of this title;

(B) §115.214(b)(1)(A)(i) and (B) of this title;

(C) §115.215(4) of this title; and

(D) §115.216(2) and (3)(B) of this title.

(3) Throughput.

(A) Any plant, as defined by its air quality account number, excluding gasoline bulk plants, which loads less than 20,000 gallons of VOC into transport vessels per day (averaged over each consecutive 30-day period) with a true vapor pressure greater than or equal to 1.5 psia under actual storage conditions is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(i) §115.212(b)(2) of this title;

(ii) §115.214(b)(1)(A)(i) and (B) of this title;

(iii) §115.215(4) of this title; and

(iv) §115.216(2), (3)(B), and (3)(D) of this title.

(B) Gasoline bulk plants which load less than 4,000 gallons of gasoline into transport vessels per day (averaged over each consecutive 30-day period) are exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(i) §115.212(b)(2) of this title;

(ii) §115.214(b)(1)(A)(i) and (B) of this title; and

(iii) §115.216(3)(D) of this title.

(4) Crude oil, condensate, and liquefied petroleum gas. All loading and unloading of crude oil, condensate, and liquefied petroleum gas is exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds), except for:

(A) §115.212(b)(2) of this title;

(B) §115.214(b)(1)(A)(i) and (B) of this title; and

(C) §115.216(3) of this title.

(5) Motor vehicle fuel dispensing facilities. Motor vehicle fuel dispensing facilities, as defined in §101.1 of this title, are exempt from the requirements of this division (relating to Loading and Unloading of Volatile Organic Compounds).

(6) Marine vessels. All loading and unloading of marine vessels is exempt from this division (relating to Loading and Unloading of Volatile Organic Compounds).

§115.219. Counties and Compliance Schedules.

(a) The owner or operator of each volatile organic compound (VOC) transfer operation in Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Nueces, Orange, San Patricio, Tarrant, Travis, Victoria, and Waller Counties shall continue to comply with this division (relating to Loading and Unloading of Volatile Organic Compounds) as required by §115.930 of this title (relating to Compliance Dates).

(b) The owner or operator of each gasoline bulk plant in the covered attainment counties as defined in §115.10 of this title (relating to Definitions) shall comply with §§115.211(2), 115.212(b),

115.214(b), 115.216, and 115.217(b) of this title (relating to Emission Specifications; Control Requirements; Inspection Requirements; Monitoring and Recordkeeping Requirements; and Exemptions) as soon as practicable, but no later than April 30, 2000.

(c) The owner or operator of each gasoline terminal in the covered attainment counties, as defined in §115.10 of this title (excluding Gregg, Nueces, and Victoria Counties) shall comply with §§115.211(1)(B), 115.212(b), 115.214(b), 115.216, and 115.217(b) of this title as soon as practicable, but no later than April 30, 2000.

(d) The owner or operator of each gasoline terminal in Gregg, Nueces, and Victoria Counties shall:

(1) continue to comply with the vapor control requirements specified in §115.212(b)(4)(A) and (B) of this title; and

(2) be in compliance with the following specifications as soon as practicable, but no later than April 30, 2000:

(A) the 20 mg/liter emission specification of §115.211(1)(B) of this title;

(B) the loading lockout requirements of §115.212(b)(4)(C) of this title;

(C) the gasoline tank-truck leak testing requirements of §115.214(b)(1)(C) of this title; and

(D) the monthly leak inspection requirements of §115.214(b)(2) of this title.

(e) The owner or operator of each gasoline terminal in Hardin, Jefferson, and Orange Counties shall comply with the loading lockout requirements of §115.212(a)(4)(C) of this title and the monthly leak inspection requirements of §115.214(a)(2) and §115.216(3)(E) of this title as soon as practicable, but no later than April 30, 2000.

(f) The owner or operator of each land-based VOC loading operation (excluding gasoline terminals and gasoline bulk plants) in Aransas, Bexar, Calhoun, Gregg, Matagorda, Nueces, San Patricio, Travis, and Victoria Counties shall comply with the 90% control efficiency requirement of §115.212(b)(1)(A) of this title as soon as practicable, but no later than April 30, 2000.

(g) The owner or operator of each land-based VOC loading operation (excluding gasoline terminals and gasoline bulk plants) in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties shall comply with the recordkeeping requirements of §115.216 of this title as soon as practicable, but no later than April 30, 2000.

(h) The owner or operator of each flare used to comply with the requirements of §115.211 and/or §115.212 of this title (relating to Emission Specifications; and Control Requirements) shall comply with §115.215(3) of this title as soon as practicable, but no later than April 30, 2000.

(i) The owner or operator of each marine terminal in Hardin, Jefferson, and Orange Counties shall comply with §§115.212(a)(6), 115.214(a)(3), 115.215, 115.216, and 115.217 of this title as soon as practicable but no later than three years after the earliest of the following occurs:

(1) 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);

(2) the EPA publishes notification in the *Federal Register* of its determination to deny the petition to redesignate the Beaumont/Port Arthur ozone nonattainment area as an ozone attainment area; or

(3) the EPA publishes notification in the *Federal Register* of its determination to deny approval of the demonstration of attainment for the Beaumont/Port Arthur ozone nonattainment area based upon Urban Airshed Model modeling.

SUBCHAPTER C : VOLATILE ORGANIC COMPOUND TRANSFER OPERATIONS

DIVISION 2 : FILLING OF GASOLINE STORAGE VESSELS

(STAGE I) FOR MOTOR VEHICLE FUEL DISPENSING FACILITIES

§§115.221 - 115.227, 115.229

STATUTORY AUTHORITY

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission (commission) with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

§115.221. Emission Specifications.

No person in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas or in the covered attainment counties, as defined in §115.10 of this title (relating to Definitions), shall transfer, or allow the transfer of, gasoline from any tank-truck tank into a stationary storage container which is located at a motor vehicle fuel dispensing facility, unless the displaced vapors from the gasoline storage container are controlled by one of the following:

(1) a vapor control system which reduces the emissions of VOC to the atmosphere to not more than 0.8 pound per 1,000 gallons (93 mg/liter) of gasoline transferred; or

(2) a vapor balance system which is operated and maintained in accordance with the provisions of §115.222 of this title (relating to Control Requirements).

§115.222. Control Requirements.

A vapor balance system will be assumed to comply with the specified emission limitation of §115.221 of this title (relating to Emission Specifications) if the following conditions are met:

(1) the container is equipped with a submerged fill pipe as defined in §101.1 of this title (relating to Definitions). The path through the submerged fill pipe to the bottom of the tank shall not be obstructed by a screen, grate, or similar device whose presence would preclude the determination of the submerged fill pipe's proximity to the tank bottom while the submerged fill tube is properly installed;

(2) a vapor-tight return line is connected before gasoline can be transferred into the storage container;

(3) no avoidable gasoline leaks, as detected by sight, sound, or smell, exist anywhere in the liquid transfer or vapor balance systems;

(4) the vapor return line's cross-sectional area is at least one-half (1/2) of the product drop line's cross-sectional area;

(5) in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the only atmospheric emission during gasoline transfer into the storage container is through a storage container vent line equipped with a pressure-vacuum relief valve set to open at a pressure of no more than eight ounces per square inch (3.4 kPa) or in accordance with the facility's Stage II system as defined in the California Air Resources Board (CARB) Executive Order(s) for the facility;

(6) in the covered attainment counties, as defined in §115.10 of this title (relating to Definitions), the only atmospheric emission during gasoline transfer into the storage container is through a storage container vent line equipped with a pressure-vacuum relief valve set to open at a pressure of no more than eight ounces per square inch (3.4 kPa);

(7) after unloading, the tank-truck tank is kept vapor-tight until the vapors in the tank-truck are returned to a loading, cleaning, or degassing operation and discharged in accordance with the control requirements of that operation;

(8) the gauge pressure in the tank-truck tank does not exceed 18 inches of water (4.5 kPa) or vacuum exceed six inches of water (1.5 kPa);

(9) no leak, as defined in §101.1 of this title, exists from potential leak sources when measured with a combustible gas detector;

(10) in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, any storage tank installed after November 15, 1993 which is required to install Stage I control equipment shall be equipped with a non-coaxial Stage I connection. In addition, any modification to a storage tank existing prior to November 15, 1993 requiring excavation of the top of the storage tank shall be equipped with a non-coaxial Stage I connection, even if the original installation utilized coaxial Stage I connections. At any facility for which a Stage II system was installed prior to November 15, 1993, the Stage I system utilized must be consistent with the relevant requirements of the CARB Executive Order for the Stage II system installed at that facility;

(11) in the covered attainment counties, any storage tank installed after December 22, 1998 which is required to install Stage I control equipment shall be equipped with a non-coaxial Stage I connection. In addition, any modification to a storage tank existing prior to December 22, 1998 requiring excavation of the top of the storage tank shall be equipped with a non-coaxial Stage I connection, even if the original installation utilized coaxial Stage I connections; and

(12) any motor vehicle fuel dispensing facility that becomes subject to the provisions of paragraphs (1)-(11) of this section by exceeding the throughput limits of §115.227 of this title (relating to Exemptions) shall have 120 days to come into compliance and will remain subject to the provisions of this subsection, even if its gasoline throughput later falls below exemption limits. However, if gasoline throughput exceeds the exemption limit due to a natural disaster or emergency condition for a period not to exceed one month, upon written request, the executive director may grant a facility continued exempt status.

§115.223. Alternate Control Requirements.

Alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing 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.

§115.224. Inspection Requirements.

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

(1) Inspections for liquid leaks, visible vapors, or significant odors resulting from gasoline transfer shall be conducted at motor vehicle fuel dispensing facilities. Gasoline transfer shall be discontinued immediately when a leak is observed and shall not be resumed until the observed leak is repaired.

(2) The gasoline tank-truck tank must have been inspected for leaks within one year in accordance with the requirements of §§115.234-115.237 of this title (relating to Control of Volatile

Organic Compound Leaks from Transport Vessels), as evidenced by a prominently displayed certification affixed near the United States Department of Transportation certification plate.

§115.225. Testing Requirements.

Compliance with the emission specification and certain control requirements and inspection requirements of §§115.221, 115.222 and 115.224 of this title (relating to Emission Specifications; Control Requirements; and Inspection Requirements) shall be determined by applying one or more of the following test methods, as appropriate.

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

(2) Concentration of volatile organic compounds.

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

(B) Test Method 25 (40 CFR 60, Appendix A) is used for determining total gaseous nonmethane organic emissions as carbon.

(C) Test Method 25A or 25B (40 CFR 60, Appendix A) is used for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis.

(3) Leak determination by instrument method. Use Test Method 21 (40 CFR 60, Appendix A) for determining volatile organic compound leaks.

(4) Minor modifications. Minor modifications to these test methods may be used, if approved by the executive director.

§115.226. Recordkeeping Requirements.

The owner or operator of each motor vehicle fuel dispensing facility in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas and in the covered attainment counties as defined in §115.10 of this title (relating to Definitions) shall maintain the following records and make them available upon request to representatives of the executive director, EPA, or any local air pollution control program with jurisdiction. The owner or operator shall:

(1) maintain a record at the facility site of the dates on which gasoline was delivered to the dispensing facility and the identification number and date of the last leak testing, required by §115.224(2) of this title (relating to Inspection Requirements), of each tank-truck tank from which gasoline was transferred to the facility. The records shall be kept for a period of two years; and

(2) maintain for a period of two years:

(A) a record of the results of any testing conducted at the motor vehicle fuel dispensing facility in accordance with the provisions specified in §115.225 of this title (relating to Testing Requirements);

(B) in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, a record of gasoline throughput for each calendar month since January 1, 1991 until such time as the facility installs a Stage II vapor recovery system as required by §§115.241-249 of this title (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities). The records must contain the calendar month and year, and the total facility gasoline throughput for each calendar month; and

(C) in the covered attainment counties, a record of gasoline throughput for each calendar month beginning January 1, 1999, until the facility is in compliance with §115.221 and §115.222 of this title (relating to Emission Specifications; and Control Requirements). The records must contain the calendar month and year, and the total facility gasoline throughput for each calendar month. These records must be made available at the site during inspection by representatives of the executive director, EPA, or any local air pollution control program with jurisdiction.

§115.227. Exemptions.

The following exemptions apply:

(1) In the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons, at motor vehicle fuel dispensing facilities for which construction began prior to November 15, 1992, are exempt from the requirements of this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities), except for:

(A) §115.222(7) of this title (relating to Control Requirements);

(B) §115.222(3) of this title as it applies to liquid gasoline leaks; and

(C) §115.224(1) of this title (relating to Inspection Requirements) as it applies to liquid gasoline leaks.

(2) In the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, transfers to stationary storage tanks located at a motor vehicle fuel dispensing facility which has dispensed no more than 10,000 gallons of gasoline in any calendar month after January 1, 1991, and for which construction began prior to November 15, 1992, are exempt from the requirements of this

division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities), except for:

- (A) §115.222(7) of this title;
- (B) §115.222(3) of this title as it applies to liquid gasoline leaks;
- (C) §115.224(1) of this title as it applies to liquid gasoline leaks; and
- (D) §115.226(2)(B) of this title (relating to Recordkeeping Requirements).

(3) In the covered attainment counties, as defined in §115.10 of this title (relating to Definitions), stationary gasoline storage containers with a nominal capacity less than or equal to 1,000 gallons at motor vehicle fuel dispensing facilities are exempt from the requirements of this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities), except for:

- (A) §115.222(7) of this title (relating to Control Requirements);
- (B) §115.222(3) of this title as it applies to liquid gasoline leaks; and

(C) §115.224(1) of this title (relating to Inspection Requirements) as it applies to liquid gasoline leaks.

(4) In the covered attainment counties, transfers to stationary storage tanks located at a motor vehicle fuel dispensing facility which has dispensed less than 125,000 gallons of gasoline in any calendar month after January 1, 1999 are exempt from the requirements of this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities), except for:

(A) §115.222(7) of this title;

(B) §115.222(3) of this title as it applies to liquid gasoline leaks;

(C) §115.224(1) of this title as it applies to liquid gasoline leaks; and

(D) §115.226(2)(C) of this title (relating to Recordkeeping Requirements).

(5) Transfers to the following stationary receiving containers are exempt from the requirements of this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities):

(A) containers used exclusively for the fueling of implements of agriculture;

and

(B) storage tanks equipped with external floating roofs, internal floating roofs, or their equivalent.

§115.229. Counties and Compliance Schedules.

(a) All affected persons in Chambers, Collin, Denton, Fort Bend, Hardin, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall comply with this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities) as soon as practicable, but no later than the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title (relating to Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities) or January 31, 1994, whichever occurs first.

(b) The owner or operator of each motor vehicle fuel dispensing facility in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties which has dispensed more than 10,000 gallons of gasoline in any calendar month after January 1, 1991, but less than 120,000 gallons of gasoline per year, and for which construction began prior to November 15, 1992 shall comply with this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities) as soon as practicable, but no later than the installation of a Stage II vapor recovery system as required by §§115.241-115.249 of this title or January 31, 1994, whichever occurs first.

(c) The owner or operator of each motor vehicle fuel dispensing facility in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties affected by §115.222(1) of this title (relating to Control Requirements), regarding the prohibition of any obstruction in the submerged fill pipe, shall comply with the prohibition on submerged fill pipe obstructions as soon as practicable, but no later than:

(1) the time of Stage II vapor recovery system installation for any facility at which the Stage II installation occurred after November 15, 1993; and

(2) November 15, 1994 for any facility which has installed Stage II controls as of November 15, 1993.

(d) The owner or operator of each motor vehicle fuel dispensing facility in the covered attainment counties, as defined in §115.10 of this title (relating to Definitions), which dispenses 125,000 gallons of gasoline or more in any calendar month after January 1, 1999 shall comply with this division (relating to Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities) as soon as practicable, but no later than April 30, 2000. The phrase "as soon as practicable, but no later than..." means that before the April 30, 2000 compliance date, motor vehicle fuel dispensing facilities which are equipped for Stage I vapor recovery must utilize Stage I for each gasoline delivery by a gasoline tank-truck which is likewise equipped for Stage I vapor recovery.

SUBCHAPTER C : VOLATILE ORGANIC COMPOUND TRANSFER OPERATIONS

DIVISION 3 : CONTROL OF VOLATILE ORGANIC COMPOUND

LEAKS FROM TRANSPORT VESSELS

§§115.234 - 115.237, 115.239

STATUTORY AUTHORITY

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.017, which provides the Texas Natural Resource Conservation Commission (commission) with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

§115.234. Inspection Requirements.

(a) No person in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, as defined in §115.10 of this title (relating to Definitions), shall allow a tank-truck tank to be filled with or emptied of gasoline at any facility subject to §115.214(a)(1)(C) or §115.224(2) of this title (relating to Inspection Requirements), or filled with non-gasoline volatile organic compounds (VOC) having a true vapor pressure greater than or equal to 0.5 pounds per square inch absolute under actual storage conditions at any facility subject to §115.214(a)(1)(C) of this title, unless the tank-truck tank has passed a leak-tight test within the past year as evidenced by a prominently displayed certification affixed near the United States Department of Transportation certification plate which:

(1) shows the date the tank-truck tank last passed the leak-tight test required by §115.235 of this title (relating to Approved Test Methods); and

(2) shows the identification number of the tank-truck tank.

(b) No person in the covered attainment counties, as defined in §115.10 of this title, shall allow a gasoline tank-truck tank to be filled or emptied at any facility subject to §115.214(b)(1)(C) or §115.224(2) of this title unless the tank-truck tank has passed a leak-tight test within the past year as evidenced by a prominently displayed certification affixed near the United States Department of Transportation certification plate which:

(1) shows the date the gasoline tank-truck tank last passed the leak-tight test required by §115.235 of this title; and

(2) shows the identification number of the tank-truck tank.

§115.235. Approved Test Methods.

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

(1) The owner or operator of any tank-truck which is filled with or emptied of gasoline at any facility subject to §115.214(a)(1)(C) or §115.224(2) of this title (relating to Inspection Requirements), or which is filled with non-gasoline volatile organic compounds (VOC) at any facility subject to §115.214(a)(1)(C) of this title shall cause each such tank to be tested annually to ensure that the tank is vapor-tight.

(2) Any tank failing to meet the testing criteria of paragraph (1) of this subsection shall be repaired and retested within 15 days.

(3) Testing required in paragraph (1) of this subsection shall be conducted in accordance with the following test methods, as appropriate:

(A) Test Method 27 (40 Code of Federal Regulations (CFR) 60, Appendix A) for determining vapor-tightness of gasoline delivery tank using pressure-vacuum test such that the pressure in the tank must change no more than three inches of water (0.75 kPa) in five minutes when pressurized to a gauge pressure of 18 inches of water (4.5 kPa) and when evacuated to a vacuum of six inches of water (1.5 kPa); or

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

(4) For tank-truck tanks which are filled with non-gasoline VOC at a facility subject to §115.214(a)(1)(C) of this title, annual testing using the leakage test method described in 49 CFR 180.407(h) for specification cargo tanks is an acceptable alternative to Test Method 27 (40 CFR 60, Appendix A).

(b) In the covered attainment counties, the following testing requirements shall apply.

(1) The owner or operator of any tank-truck which is filled or emptied at any facility subject to §115.214(b)(1)(C) or §115.224(2) of this title shall cause each such tank to be tested annually to ensure that the tank is vapor-tight.

(2) Any tank failing to meet the testing criteria of paragraph (1) of this subsection shall be repaired and retested within 15 days.

(3) Testing required in paragraph (1) of this subsection shall be conducted in accordance with the following test methods, as appropriate:

(A) Test Method 27 (40 CFR 60, Appendix A) for determining vapor tightness of gasoline delivery tank using pressure-vacuum test such that the pressure in the tank must change no more than three inches of water (0.75 kPa) in five minutes when pressurized to a gauge pressure of 18 inches of water (4.5 kPa) and when evacuated to a vacuum of six inches of water (1.5 kPa); or

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

§115.236. Recordkeeping Requirements.

The following recordkeeping requirements shall apply.

(1) The owner or operator of each tank-truck subject to this division (relating to Control of Volatile Organic Compound Leaks from Transport Vessels) shall maintain records of all certification testing and repairs. The records must be maintained for at least two years after the date the testing or repair was completed.

(2) The record of each Test Method 27 certification test required by paragraph (1) of this section shall, at a minimum, contain:

(A) company name;

(B) date and location of the test;

(C) name and title of person conducting the test;

(D) tank identification number;

(E) initial test pressure and the time of the reading;

(F) final test pressure and the time of the reading;

(G) initial test vacuum and the time of the reading; and

(H) final test vacuum and the time of the reading.

(3) Records of each leakage test conducted under §115.235(a)(4) of this title (relating to Approved Test Methods) shall be maintained as specified in 49 Code of Federal Regulations 180.417.

(4) Copies of all records required by this section shall be made available for review upon request by representatives of the executive director, EPA, or any local air pollution control agency with jurisdiction.

§115.237. Exemptions.

(a) The following exemptions apply in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas.

(1) Any tank-truck tank which is used exclusively to transport volatile organic compounds (VOC) with a true vapor pressure less than 0.5 pounds per square inch absolute under actual storage conditions is exempt from the requirements of this division (relating to Control of Volatile Organic Compound Leaks From Transport Vessels).

(2) Transport vessels other than tank-trucks are exempt from the requirements of this division (relating to Control of Volatile Organic Compound Leaks From Transport Vessels).

(3) Any tank-truck tank that is a portable tank, as defined in 49 Code of Federal Regulations 171.8, is exempt from the requirements of this division (relating to Control of Volatile Organic Compound Leaks from Transport Vessels).

(b) In the covered attainment counties, transport vessels other than tank-trucks are exempt from the requirements of this division (relating to Control of Volatile Organic Compound Leaks From Transport Vessels).

§115.239. Counties and Compliance Schedules.

(a) The owner or operator of each tank-truck tank in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties shall continue to comply with §§115.234, 115.235, 115.236, and 115.237

of this title (relating to Inspection Requirements, Approved Test Methods, Recordkeeping Requirements, and Exemptions) as required by §115.930 of this title (relating to Compliance Dates).

(b) The owner or operator of each gasoline tank-truck tank in the covered attainment counties, as defined in §115.10 of this title (relating to Definitions), shall comply with §§115.234, 115.235, 115.236, and 115.237 of this title as soon as practicable, but no later than April 30, 2000. The phrase "as soon as practicable, but no later than..." means that before the April 30, 2000 compliance date, gasoline tank-trucks which are equipped for Stage I vapor recovery must utilize Stage I for each gasoline delivery at a motor vehicle fuel dispensing facility which is likewise equipped for Stage I vapor recovery.