

This agency hereby certifies that the rule as adopted has been reviewed by legal counsel and found to be a valid exercise of the agency's legal authority.

Issued in Austin, Texas, on January 26, 1990.

TRD-9000976

Allen Eli Bell
Executive Director
Texas Air Control Board

Effective date: February 19, 1990

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For further information, please call: (512) 451-5711, ext.354

Subchapter B. General Volatile Organic Compound Sources Storage of Volatile Organic Compounds

• 31 TAC §§115.112-115.117, 115.119

The Texas Air Control Board (TACB) adopts new §§115.112-115.117 and 115.119. Section 115.115 is adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3633). Sections 115.112-115.114, 115.116, 115.117, and 115.119 are adopted without changes and will not be republished.

The new §115.112, concerning control requirements, defines the types of controls or technologies required to achieve necessary emission reductions. The new §115.113, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.114, concerning inspection requirements, identifies the components needing inspection and the frequency of inspections. The new §115.115, concerning testing requirements, identifies the test methods which must be used to determine compliance and enables the TACB executive director to approve minor modifications to the methods. The new §115.116, concerning recordkeeping requirements, describes the information which must be maintained by affected facilities in order to ensure continuous compliance and improve the effectiveness of enforcement. The new §115.117, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.119, concerning counties and compliance schedules, establishes the final compliance dates for applicable controls in specified counties. These sections are part of a series of additions to Chapter 115 proposed primarily to satisfy United States Environmental Protection Agency (EPA) requirements for Phase I of the Post-1987 State Implementation Plan (SIP) revisions for ozone. The TACB also has adopted a comprehensive restructuring of Chapter 115 to promote greater clarity and to eliminate inconsistencies resulting from numerous independent revisions over the past several years.

The Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, §5(c)(1), requires categorization of comments as being for or against a proposal. A commenter who suggested any changes in the proposal is categorized as against the proposal; a commenter who agreed with the

proposal in its entirety is classified as being for the proposal. Eight commenters opposed the proposal, while no one testified in support.

Two commenters, the Sierra Club and one individual, recommended numerous changes to require more stringent controls on volatile organic compound (VOC) storage tanks. These requirements would include: submerged fill pipes for all tanks with capacity below 1,000 gallons; vapor recovery systems on tanks with capacity between 1,000 and 25,000 gallons; double seal floating roofs and vapor recovery systems on tanks with capacity between 25,000 and 40,000 gallons; submerged fill pipes and vapor recovery systems on tanks which store VOC with vapor pressures greater than 11.0 pounds per square inch absolute (psia); vapor recovery systems on all rim vents and bleeder vents; and reduction of VOC emissions to at least 0.5 psia for all vapor recovery systems. The control measures specified in these sections are consistent with EPA guidelines which define reasonably available control technology for VOC storage facilities. Requiring supplemental or multiple controls on storage tanks is beyond the intended scope of this rulemaking. However, additional controls may be considered in subsequent rulemaking in conjunction with Phase II of the Post-1987 SIP revisions.

One commenter, Kelly Air Force Base, requested that TACB staff specify if foam or liquid filled seals, similar to those specified in 40 Code of Federal Regulations Subpart Kb, §60.112b, are required for storage tanks in counties other than nonattainment counties. Floating roof tanks requiring seals are only specified for tanks with capacity greater than 25,000 gallons and vapor pressures less than 11.0 psia. The type of seal required is not specified but must conform to accepted engineering practice.

Two commenters, EPA and one individual, suggested that visual inspections of secondary seals be performed biannually, with the actual measurement of seal gap required annually. Annual visual inspection and measurement of secondary seals is consistent with EPA guidance documents regarding storage facilities. More frequent visual inspections would represent a significant additional requirement on affected sources with uncertain emission reduction benefits.

One commenter, Occidental Chemical Corporation (Occidental), requested clarification that the specified test methods are for compliance purposes only and are not required for use by the operators of the affected facilities. Compliance will be established by the test methods specified in the regulation. Affected facilities will be

required to use these approved methods for self-monitoring and reporting purposes which may impact the issuance of a notice of violation. The TACB does not regulate test methods used only for internal management or process control purposes and which will not influence compliance. Clarification within the regulation does not appear necessary.

One individual suggested that facilities be required to keep records for each tank containing VOCs with a true vapor pressure of 0.5 psia, rather than 1.0 psia. Controls are required for all storage tanks containing VOCs with a true vapor pressure greater than 1.5 psia. The requirement that records be kept for all tanks which exceed 1.0 psia is intended to provide sufficient information to determine the applicability of the exemption level for each tank. A reduction to 0.5 psia is not expected to improve the TACB staff's ability to confirm an exemption for sources which store materials that fluctuate around the control limit of 1.5 psia.

Three commenters, Texas Chemical Council, Occidental, and Rohm and Haas Texas Incorporated, suggested alternative means of determining and recording the proper functioning of vapor recovery systems used to demonstrate compliance. Recommendations included: monitoring the temperature of an incinerator's firebox or a chiller's coolant, rather than of the inlet and outlet gas stream; monitoring only the outlet temperature of a chiller; maintaining less specific records on all control devices; and measuring applicable parameters monthly, rather than daily, to determine compliance. Measuring the outlet temperature of a direct-flame incinerator and comparing it against compliance sampling results is a simple and direct means of determining if the device is operating to minimum design specification previously verified during compliance demonstrations. A comparison of the inlet and outlet temperatures is necessary to make a similar determination for both chillers and catalytic incinerators since the temperature change, rather than the absolute temperature, is more indicative of effectiveness. While other alternative monitoring and recordkeeping measures may be appropriate, insufficient information was provided in the testimony to warrant changes to the proposal. However, additional information may be considered for future rulemaking or as an alternate means of control. Compliance is required on a daily basis, therefore, recordkeeping must also reflect daily operations. Monthly monitoring could not effectively ensure daily compliance. While continuous monitoring of VOC emissions would be unwarranted in most circumstances, daily recording of operation parameters remains reasonable.

One commenter, Texas Mid-Continent Oil and Gas Association, recommended allowing an exemption from slotted gauge poles on floating roof storage tanks. TACB rules previously included an exemption for slotted sampling and gauge poles. However, EPA recently determined that such an exemption was inconsistent with federal requirements and directed the TACB to delete it for all counties included in the SIP.

Two commenters, the Sierra Club and one individual, opposed certain exemptions included in these sections. Exemptions for VOC storage facilities were established based on federal guidelines or at a minimum level of significance determined by the TACB staff and coordinated with the EPA. While controls for smaller sources may be considered in future planning, changes to these exemptions are beyond the scope of this rulemaking.

The new sections are adopted under the Texas Clean Air Act (TCAA), §362.017, which provides the TACB with the authority to make rules consistent with the policy and purposes of the TCAA.

§115.115. Testing Requirements. For the counties referenced in §115.119(a) of this title (relating to Counties and Compliance Schedules), compliance with §115.112(a) of this title (concerning Control Requirements) shall be determined by applying the following test methods, as appropriate:

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

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

(3) Test Method 22 (40 Code of Federal Regulations 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(4) Test Method 25 (40 Code of Federal Regulations 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(5) Test Methods 25A or 25B (Code of Federal Regulations 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(6) test method described in 40 Code of Federal Regulations 60.13(a)(ii) for measurement of storage tank seal gap;

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

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

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Vent Gas Control

• 31 TAC §§115.121-115.123, 115.125-115.127, 115.129

The Texas Air Control Board (TACB) adopts new §§115.121-115.123, 115.125-115.127, and 115.129. Sections 115.123, 115.125, and 115.129 are adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3640). Sections 115.121, 115.122, 115.126, and 115.127 are adopted without changes and will not be republished.

The new §115.121, concerning emission specifications, establishes the maximum level of acceptable emissions from specified sources. The new §115.122, concerning control requirements, defines the type of control or technologies required to achieve necessary emission reductions. The new §115.123, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.125, concerning testing requirements, identifies the test methods which must be used to determine compliance and enables the TACB executive director to approve minor modifications to the methods. The new §115.126, concerning recordkeeping requirements, describes the information which must be maintained by affected facilities in order to ensure continuous compliance and improve the effectiveness of enforcement. The new §115.127, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.129, concerning counties and compliance schedules, establishes the final compliance dates for applicable controls in specified counties. These sections are part of a series of additions to Chapter 115 proposed primarily to satisfy United States Environmental Protection Agency (EPA) requirements for Phase I of the Post-1987 State Implementation Plan (SIP) revisions for ozone. The TACB also has adopted a comprehensive restructuring of Chapter 115 to promote greater clarity and to eliminate inconsistencies resulting from numerous independent revisions over the past several years.

The Administrative Procedure and Texas Register Act, Texas Civil Statutes, Article 6252-13a, §5(c)(1), requires categorization of comments as being for or against a proposal. A commenter who suggested any changes in the proposal is categorized as against the proposal; a commenter who agreed with the proposal in its entirety is classified as being

for the proposal. Eleven commenters opposed the proposal, while no one testified in support.

Three commenters, the City of Dallas, the City of Fort Worth (Fort Worth), and Rohm and Haas Texas Incorporated (Rohm & Haas); recommended simplifying the rule, while one additional commenter, Ethyl Corporation (Ethyl), indicated that the proposed revision changed the intent and broadened the scope of impact of the existing regulation.

In developing these revisions, the staff adopted existing language whenever possible, making changes only when necessary to conform to the revised organizational format. Except for the administrative provisions necessary to satisfy EPA requirements, no new control measures were added or expanded. The commenters provided no specific suggestions regarding improvements.

One commenter, EPA, suggested that all provisions of this rule should apply to all volatile organic compounds (VOC). During the initial planning effort for certain rural nonattainment counties, fewer emission reductions were required to demonstrate attainment than in the major urban areas which have undergone subsequent plan development. Therefore, not all VOCs were originally required to be controlled by the vent gas rule. Significant additional reductions may be possible in these rural areas by expanding the controls to include all VOC's, and will be evaluated during future rulemaking for all nonattainment counties.

Two commenters, Dow Chemical Company and Ethyl, opposed the control limits of 20 parts per million or 98% destruction efficiency for air oxidation synthetic organic chemical processes, while one individual recommended that the more stringent of the two limitations should be required in specific circumstances. The control measures which address air oxidation processes at synthetic organic chemical manufacturing facilities were established based on a control techniques guideline (CTG) published by EPA for that industry and adopted by the TACB as SIP revisions. Federal SIP criteria require the states to adopt rules based on each CTG published by EPA. The CTG provided sources the choice of the two emission limits because 98% destruction of a very dilute vent-gas stream is economically unreasonable and achieves insignificant air quality benefits below 20 ppm.

Two commenters, Occidental Chemical Corporation (Occidental) and Rohm & Haas, indicated that recordkeeping requirements are too broad and ambiguous and recommended that the regulation include less specific or only clearly defined monitoring parameters. The recordkeeping requirements for vent gas controls are required to be "sufficient to demonstrate the proper functioning of applicable control equipment to design specifications." While the criteria specifically identified in the regulation may satisfy this requirement, additional or different information may also be necessary for other types of control devices not specifically anticipated by the regulation. Other information may be considered or required by the TACB staff if it is necessary to provide at least a daily indicator of continuous compliance.