

(C) (noneligible levels of care (e.g., unlicensed providers, care or treatment provided by a family member, etc.);

and (D) (exclusions/exceptions;

(E) (limitations.)

THIS POLICY MAY NOT COVER ALL THE EXPENSES ASSOCIATED WITH YOUR LONG-TERM CARE NEEDS.

(8) Relationship of cost of care and benefits. Because the costs of long-term care services will likely increase over time, you should consider whether and how the benefits of this plan may be adjusted. (As applicable, indicate the following:

(A) (that the benefit level will not increase over time;

(B) (any automatic benefit adjustment provisions;

(C) (whether the insured will be guaranteed the option to buy additional benefits and the basis upon which benefits will be increased over time if not by a specified amount or percentage;

(D) (if such a guarantee is present, whether additional underwriting or health screening will be required, the frequency and amounts of the upgrade options, and any significant restrictions or limitations; and

(E) (whether any additional premium charge will be imposed, and how that is to be calculated.)

(9) Terms under which the (policy) (certificate) may be continued in force and is continued. (Provide the following:

(A) (a description of the policy renewability provisions);

(B) (for group coverage, a specific description of continuation/conversion provisions applicable to the certificate and group policy);

(C) (a description of waiver of premium provisions or a statement that there are no such provisions); and

(D) (a statement of whether or not the company has a right to change premium, and if such a right exists, a clear and concise description of each circumstance under which premium may change.)

(10) Alzheimer's disease and other organic brain disorders. (State that the policy provides coverage for insureds clinically diagnosed as having Alzheimer's disease or related degenerative illnesses and illnesses involving dementia. Specifically describe each benefit screen or other policy provision which provides preconditions to the availability of policy benefits for such an insured).

(11) Premium.

(A) (State the total annual premium for the policy. In the event the total premium for the policy is different from the annual premium, then the total premium also shall be stated. Initial policy fees shall be stated separately.)

(B) (If the premium varies with an applicant's choice among benefit options, indicate the portion of annual premium which corresponds to each benefit option.)

(C) (This paragraph also shall include a statement of the policy grace period.)

(12) Additional features.

(A) (Indicate if medical underwriting is used.)

(B) (Describe other important features.)

§3.3833. Group Certificates; Outline of Coverage Required. An outline of coverage is required on any group certificate issued for group long-term care insurance issued to a group as defined in the Insurance Code, Article 3.51-6, §1(a). Such outline of coverage shall be in a format identical to that which is required of individual long-term care insurance policies in §3.3832 of this title (relating to Outline of Coverage), and shall be delivered to prospective enrollees no later than the time that application for group benefits is made.

§3.3836. Standards for Policy Certificates Submitted for Approval. A certificate issued pursuant to a group long-term care insurance policy, which certificate is delivered or issued for delivery in this state, shall include:

(1) a description of the principal benefits and coverage provided in the policy;

(2) a statement of the principal exclusions, reductions, and limitations contained in the policy;

(3) a statement that the group master policy determines governing contractual provisions; and

(4) an outline of coverage as provided for in §3.3832 of this title (relating to Outline of Coverage) and §3.3833 of this title (relating to Group Certificates; Outline of Coverage Required).

§3.3837. Effective Date. The sections of this subchapter, as adopted by the board, shall become effective 20 days from the date they are filed, as adopted by the board, with the Office of the Secretary of State and shall be applicable to all long-term care insurance policies and subscriber contracts of hospital and medical service associations filed for approval on and after 30 days from such date. Policies or contracts which have been approved prior to the effective date of the sections in this subchapter and which are not in compliance with this subchapter may be continued to be used until June 1, 1990, unless approval is specifically withdrawn as provided for in the Insurance Code, Article 3.42. All such policies or contracts delivered or issued for delivery in this state after June 1, 1990, shall be in compliance with the sections of this subchapter.

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 25, 1990.

TRD-9000884

Nicholas Murphy
Chief Clerk
State Board of Insurance

Effective date: February 15, 1990

Proposal publication date: September 19, 1989

For further information, please call: (512) 463-6327

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TITLE 31. NATURAL RESOURCES and CONSERVATION

Part III. Texas Air Control Board

Chapter 115. Control of Air Pollution From Volatile Organic Compounds

Subchapter A. Definitions

Definitions

• 31 TAC §115.010

The Texas Air Control Board (TACB) adopts new §115.010, with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3622).

This section is part of a series of additions to Chapter 115 primarily intended to satisfy United States Environmental Protection Agency (EPA) requirements for Phase I of the Post-1987 State Implementation Plan (SIP) revisions for ozone and to promote greater clarity and to eliminate inconsistencies resulting from numerous independent revisions over the past several years.

The following new undesignated heads in Chapter 115 are also adopted: §§115.112-115.117 and §115.119, concerning storage of volatile organic compounds; §§115.121-115.123, §§115.125-115.127, and 115.129, concerning vent gas control; §§115.131-115.133, 115.135-115.137, and 115.139, concerning water separation; §§115.211-115.217 and 115.219, concerning loading and unloading of volatile organic compounds; §§115.221-115.227 and 115.229, concerning filling of gasoline storage vessels (Stage I) for motor vehicle fuel dispensing facilities; §§115.234-115.236 and 115.239, concerning control of volatile organic compound leaks from gasoline tank-trucks; §§115.242-115.243, 115.245-115.247, and 115.249, concerning control of Reid vapor pressure of gasoline; §§115.311-115.313, 115.315-115.317, and 115.319, concerning process unit turnaround and vacuum-producing systems in petroleum refineries; §§115.322-115.327 and 115.329, concerning fugitive emission control in petroleum refineries; §§115.332-115.337 and 115.339, concerning fugitive emission control in synthetic organic chemical, polymer, and resin manufacturing processes; §§115.342-115.347 and 115.349, concerning fugitive emission control in natural gas/gasoline processing operations; §§115.412, 115.413, 115.415-115.417, and 115.419, concerning degreasing processes; §§115.421-115.423, 115.425-115.427, and 115.429, concerning surface coating processes; §§115.432, 115.433, 115.435-115.437, and 115.439, concerning graphic arts (printing) by rotogravure and flexographic processes §§115.512, 115.513, 115.515-115.517, and 115.519, concerning cutback asphalt; §§115.521-115.527 and 115.529, concerning perchloroethylene dry cleaning systems; §§115.531-115.537 and 115.539, concerning pharmaceutical manufacturing facilities; §§115.612, 115.613, 115.615-115.617, and 115.619, concerning consumer-solvent products; §115.910, concerning alternate means of control; and §§115.930, 115.932, 115.934, and 115.936, concerning compliance and control plan requirements.

Appropriate preambles are concurrently published in this issue. Since the proposed changes involved a comprehensive restructuring of Chapter 115, the TACB staff determined that it would be administratively more efficient to repeal the existing Chapter 115 in its entirety and to add a new Chapter 115. While in most instances the purpose of rule provisions remains the same, the chapter has been significantly reorganized, and the sections are renumbered and stylistically changed. The new §115.010, concerning definitions, contains definitions of terms found in Chapter 115 and revises references to the Texas Civil Statutes to reflect recent codification of the Texas Clean Air Act (TCAA).

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 definitions section of the proposal, while no one testified in support in

addition, a series of broad issues affecting the general TACB policies and practices were raised by 29 commenters and are included in this section of the evaluation. Numerous other comments regarding the definition of terms affecting only specific source categories were also submitted as testimony. The response to these comments is included in the individual sections of this evaluation.

Two commenters, EPA and one individual, suggested reducing or eliminating the minimum size criteria in the definition for delivery vessel/tank-truck tank used in gasoline marketing operations. A survey by the TACB staff has determined that the smallest tank-trucks used to deliver gasoline have capacities of approximately 1,500 gallons. Therefore, the 1,000-gallon minimum level in the definition would exempt very small containers, such as 55 gallon drums in the back of pickup trucks, from the regulation. These containers are not included in the emission calculations for credit from these controls and are impractical to regulate.

Three commenters, the Sierra Club, EPA, and one individual, suggested that the definition of leak be revised to: reduce the VOC concentration limit from 10,000 ppm to 1,000 ppm; be based on detection by sight, sound, or smell, as well as a hydrocarbon detection device; and eliminate the minimum criteria for the vapor pressure of visible liquids leaks. The VOC concentration limit of 10,000 ppm for a leak is based on a level of significance established by EPA in several guidance documents published to define reasonably available control technology (RACT) for fugitive emissions monitoring regulations. Lowering this limit would go beyond federal guidelines and may be an appropriate strategy for achieving additional emission reductions necessary to complete a demonstration of attainment in the ozone nonattainment areas. However, this current rulemaking was not intended to result in additional controls. While detection of potential leaks may be based on sight, sound, or smell, confirmation of the VOC concentration above the established limit with a VOC detection instrument would be necessary before repairs would be required. Similarly, the elimination of the vapor pressure criteria for liquids would require sources to monitor components which do not even have the potential for exceeding the concentration limits of a VOC leak at the current 10,000 ppm leak definition.

One individual suggested revising the definition of a vapor recovery system to require reduction of VOC to at least 0.5 pounds per square inch absolute (psia), rather than 1.5 psia currently specified in the definition. Existing control technique guideline (CTG) documents for VOC storage and handling require controls only on VOC sources with emission concentrations of 1.5 psia or more. Therefore, the efficiency of a minimal vapor recovery system was established to provide sufficient reductions to achieve a level of emissions comparable to a source which would not be required to implement controls. Furthermore, several regulations contain requirements for minimum destruction efficiencies of up to 98% for vapor recovery systems on certain types of processes.

Six commenters, two from the Sierra Club and four individuals, questioned the exclusion of specific compounds, such as methylene chloride, methyl chloroform, freon 113, and other chlorofluorocarbons (CFC) from the definition of VOC since many of these compounds have potential adverse health effects and are suspected of contributing to the depletion of stratospheric ozone. However, another commenter, EPA, suggested excluding four CFCs recently exempted by EPA from the federal definition of VOC. The TACB definition of VOC is intended to be consistent with the EPA definition, which is based solely on the photochemical reactivity of the compounds toward the creation of ambient ozone. Revisions to the TACB rules will be considered in the future to ensure this consistency. Future control of the compounds excluded from the definition of VOC may be appropriate to address other specific adverse environmental effects.

Additional testimony was also received which addressed broad issues affecting the general TACB policies and practices reflected throughout Chapter 115. The following comments were considered in the development of final recommendations for all adopted sections.

Eleven commenters, the City of Dallas (Dallas), Texas Mid-Continent Oil and Gas Association (TMOGA), the City of Fort Worth (Fort Worth), North Central Texas Council of Governments, EPA, Texas Chemical Council (TCC), Ethyl Corporation (Ethyl), Dow Chemical Company (Dow), El Paso City-County Health District (EPCCHD), Chevron Corporation, and Rohm and Haas Texas Incorporated (Rohm & Haas), expressed general support for the proposed new organizational format of Regulation V. However, one commenter, Occidental Chemical Corporation (Occidental), suggested an index of revisions be compiled and made available. They also suggested that the TACB staff conduct a seminar to assist affected facilities compare the new format to the old regulation. The TACB staff will provide assistance as necessary to help make the proposed revisions understandable to the regulated community and the general public. An index to correlate the old regulation to the new regulation is being compiled and will be made available when completed. The TACB staff will consider conducting a seminar to discuss the new regulation, if warranted.

Two commenters, Dallas and Fort Worth, suggested that the first section of each undesignated head make reference to counties and compliance schedules and name the counties in each section. The organization of the new regulation places the words "Counties and Compliance Schedules" within the section number that ends with a nine for all rules to allow for ease of access in a computerized system. Also, placing the counties and compliance schedules at one place in each undesignated head makes it easier to revise control requirements and schedules without associated changes being necessary throughout the undesignated head. The counties and compliance schedules is referenced at the beginning of each section to direct the reader to the appropriate information.

Two commenters, Dallas and Fort Worth, suggested that subsections in alternate control requirements sections be combined since they are similar. Sections 115.113(a) and (b), 115.123(a) and (b), 115.133(a) and (b), and 115.213(a) and (b) were mentioned specifically. One commenter, EPA, suggested that inspection, testing, and recordkeeping requirements proposed for nonattainment counties be extended to the eight counties in Regulation V that are not considered as nonattainment. They also stated that EPA approval is necessary for any exemption in these eight counties. The TACB staff, in reorganizing Regulation V, intentionally separated counties that are considered nonattainment from all other counties. This was done by keeping nonattainment counties within the (a) subsections and all other counties in (n) subsections. The TACB staff feels that this separation adds to the understandability and enforceability of the regulation by clearly distinguishing between the two groups of counties with differing control requirements. Furthermore, only subsection (a) is considered as part of the SIP and, therefore, federally enforceable.

Four commenters, EPA and three individuals, requested language be inserted in test methods, testing procedures, recordkeeping requirements, emission monitoring, and control equipment monitoring stipulating that any deviation from the incorporated methods must be submitted as a SIP revision. Two commenters, Exxon Company U.S.A. and TMOGA, suggested that all testing methods approved by the American Society of Testing and Materials (ASTM) or EPA should be acceptable. EPA has identified and published specific acceptable test methods for use by states in determining compliance. In recent negotiations, EPA has also agreed to allow the use of certain ASTM methods. These test methods are currently recognized by the TACB staff and others as the industry standards. Furthermore, EPA has indicated that minor modifications to methods which do not involve any significant change in the results may be independently approved by the executive director. However, new test methods or major changes approved by the TACB staff must still be submitted to the EPA for approval.

One commenter, EPA, indicated that once a source exceeds an exemption limit it should not be allowed to claim that exemption in the future even if emissions consistently drop back below the limit. This concept is referred to by EPA as "once-in always-in." Exceedances of exemptions are treated the same as violations of any control requirement or emission limit. A notice of violation is issued and appropriate enforcement action is taken pursuant to the enforcement rules, 31 TAC Chapter 105. If a facility shows a history of exceedances, the TACB may require a fully enforceable board order requiring the implementation of controls or process limitations to ensure compliance. Furthermore, any process change which increases emissions above historic levels, whether they violate an exemption level or not, must obtain a TACB permit for the modification or qualify for a standard exemption. These permits are also fully enforceable. Both board orders and permits may be considered as SIP revisions. The TACB staff feels the present enforcement

options are sufficient without removing a company's options for reducing emissions after single exceedance.

Twelve commenters, Ethyl, Houston Chamber of Commerce (HCC), TCC, Dow, TMOGA, Rohm & Haas, Shell Chemical Company (Shell Chemical), Exxon Chemical Americas (Exxon Chemical), Chevron Chemical Company (Chevron Chemical), Mobil Chemical Company, Quantum Chemical Corporation (Quantum), and Occidental, stated that the proposed recordkeeping requirements are ambiguous and/or burdensome. TCC recommended that records be kept only for abnormal operating conditions that result in increased emissions along with a design file for the control equipment. Furthermore, they suggested that tests only be repeated when there is a permanent change in normal operating parameters. Five commenters, the Sierra Club and four individuals, recommended that records be kept for five years, rather than the proposed two years. The proposed recordkeeping requirements are a necessary part of Phase I of the Post-1987 SIP in order to ensure the effectiveness of the applicable control and to determine continuous compliance of all affected sources under normal conditions. These records include information which would need to be provided upon request to demonstrate compliance and, therefore, should not constitute a significant additional burden on the affected industry. No testimony was received to substantiate the commenters' claims that the recordkeeping requirements are ambiguous or burdensome. The TACB staff feels that retaining records for two years is sufficient to determine compliance since it adequately reflects recent operating history at each site.

Seven commenters, TCC, Rohm & Haas, HCC, Ethyl, Dow, Shell Chemical, and Exxon Chemical, all expressed concerns regarding the implementation of new control requirements as a result of this rulemaking. It was suggested that additional controls for all sources should be considered during the development of a comprehensive SIP. However, eight commenters, Galveston-Houston Association for Smog Prevention (GHASP), the Sierra Club, and six individuals, suggested that the Houston/Galveston consolidated metropolitan statistical area (CMSA) should be controlled at this time at least as stringently as the Dallas/Fort Worth CMSA. The additional administrative requirements proposed in this revision are intended only to ensure effectiveness of existing rules or to comply with requirements included in CTGs published by EPA to define RACT for specific source categories. No additional substantive control requirements or emission limitations were considered. Phase II of the Post-1987 SIP revision for all of the major urban ozone nonattainment areas in Texas is expected to include all of the most stringent controls currently enforced in the state, in addition to controls on smaller and previously unidentified VOC sources. The TACB staff assumed that Phase II SIP revisions would immediately follow the Phase I revisions and, therefore, would be accomplished expeditiously. It may be appropriate for the TACB staff to consider proceeding with control efforts if it appears that waiting for a federal framework for such actions may indefinitely delay useful actions.

One commenter, EPA, has also required that RACT be identified and adopted for all major sources not specifically covered by a published CTG and located in Dallas, Tarrant, Harris, and El Paso Counties. The TACB staff has previously performed and submitted to EPA an economic analysis for all major non-CTG sources in Dallas and Tarrant Counties which demonstrated that additional controls on the vent gas streams from those sources are not economically feasible. No such analysis has been performed for El Paso or Harris Counties at this time. However, the TACB staff recognizes that the EPA expects an additional evaluation of process controls for those facilities which may achieve reasonable emission reductions. The TACB staff will continue to investigate potential controls and will consider necessary rulemaking, as appropriate. As part of that investigation, the TACB staff has requested information on process controls on similar facilities in other parts of the country and will consider adoption of any identified controls for sources in Texas.

Four commenters, EPA, GHASP, the Sierra Club, and one individual, stated that Phase I of the Post-1987 SIP call requirements should include lowering of exemption levels and more stringent control measures as identified in previous EPA guidance and correspondence. The TACB staff intends to propose lowering specified exemption levels in accordance with EPA requirements during 1990. Information regarding the technical and economic reasonableness of these exemption levels will be solicited during that rulemaking and considered prior to final adoption.

One commenter, the Galveston County Health District, opposed the 550-pound exemption for VOC in several existing source categories. When controls for sources covered by most CTGs were originally implemented, they were intended to apply only to major sources, defined as emitting at least 100 tons per year, which equates to approximately 550 pounds per day. Subsequent SIP revisions have resulted in lower exemption levels for some source categories where additional emission reductions have been required to demonstrate attainment. The TACB staff intends to propose additional rulemaking to lower many of the current exemption levels in accordance with EPA requirements for RACT. Furthermore, the need to obtain additional emission reductions during the development of the Post-1987 SIP revisions will likely require control of most small sources by further lowering exemption levels.

Three commenters, TCC, Chevron Chemical, and TMOGA, opposed the requirement for annual testing of elevated valves in the fugitive emission regulations for safety reasons. One individual suggested the term "technically feasible" found in the fugitive emissions rules be defined. Elevated valves are exempted as inaccessible in the current fugitive monitoring requirements. Although EPA has stated that no such exemption is provided in the applicable CTGs for these sources, the annual inspection of elevated sources is consistent with new source performance standard requirements. "Technically feasible" within the context of these rules refers to all repairs which may be reasonably attempted while the associated

process unit remains in service. This must be a case-by-case determination depending on the type of component and leak and the potential for isolating the component without a unit shutdown.

Six commenters, Dow, TMOGA, Ethyl, HCC, TCC, and Chevron Chemical, suggested cost-effectiveness should be evaluated before adding new controls. HCC also stated that emission reductions should be credited in the SIP. The baseline emission inventory for the Post-1987 SIP revision is being prepared for the year 1988. No reductions are anticipated to result from the proposed revisions at this time. The TACB staff agrees that emission reductions from any future controls, such as a lowering of the exemption levels and additional process controls, should be credited toward a future demonstration of attainment. Little or no additional cost was associated with the proposed sections, with the exception of Reid vapor pressure controls, because most recordkeeping, inspection, and testing requirements were only necessary to document compliance with existing sections. The TACB staff has always evaluated and will continue to consider the cost-effectiveness of substantive control requirements.

One commenter, Rohm & Haas, suggested adding an exemption to Regulation V for new or modified facilities that have gone through the TACB permit review process. Regulation V and ozone control strategies involve retrofit controls based on technological advances and reduction requirements which may go beyond requirements that exist at the time a permit was issued.

One commenter Kelly Air Force Base, noted that the standard exemption list in Chapter 116 regarding permitting must be revised to correct updated clerical references to the new Chapter 115. The TACB staff recognizes the need for corrections to Chapter 116 and will propose those changes in subsequent rulemaking.

Seven commenters, GHASP, General Motors Corporation, the Sierra Club, and four individuals, requested extension of the comment period. The TACB staff, in response to these requests, extended the deadline for comments on the proposed changes to Regulation V from August 25, 1989 until September 8, 1989.

Six commenters, GHASP and five individuals, supported increasing resources for TACB and local agencies to implement Regulation V. The TACB receives annual federal grant funds from EPA for various programs including Regulation V development and enforcement. The remainder of TACB funding comes from state legislative appropriations with a significant portion of these funds are generated through inspection and permit fees assessed by the TACB. The TACB staff acknowledges that additional resource requirements will be necessary to properly enforce Regulation V and will seek additional funding, as appropriate. The TACB will continue to provide as much support as possible to local, county, and municipal programs within a cooperative working relationship.

One commenter, EPCCHD, stated that the El Paso pollution problem is a United States/Mexico joint problem. The TACB staff

concur that the air pollution in El Paso is an international issue. The TACB staff is actively involved in ongoing federal negotiations with the governments of Mexico and Ciudad Juarez to promote cooperative efforts to improve air quality in these border communities.

Seven commenters, Ethyl, Dow, Rohm & Haas, Shell Chemical, Dupont Chemical Corporation, Exxon Chemical, and Occidental, supported comments made by the TCC. Five commenters, the Sierra Club and four individuals, supported comments made by the EPA.

The new sections are adopted under the TCAA, §382.017, which provides the TACB with the authority to make rules consistent with the policy and purposes of the TCAA.

§115.010. Definitions. Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the board, the terms used by the board 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 words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise.

Architectural coating—Any protective or decorative coating applied to the interior or exterior of a building or structure, including latex paint, alkyd paints, stains, lacquers, varnishes, and urethanes.

Automobile refinishing—The recoating of individual auto-mobiles and light-duty trucks by a commercial operation other than the manufacturer to repair, restore, or alter the exterior finish, including primer, primer surfacer, alkyd enamel, base coat, clear coat, and lacquer application.

Automotive primer or primer surfacers (used in automobile refinishing)—Any base coat, sealer, or intermediate coat which is applied prior to colorant or aesthetic coats.

Automotive wipe-down solutions—Any solution used for cleaning and surface preparation.

Coating application system—Devices or equipment designed for the purpose of applying a coating material to a surface. The devices may include, but not be limited to, brushes, sprayers, flow coaters, dip tanks, rollers, knife coaters, and extrusion coaters.

Consumer-solvent products

Products sold or offered for sale by wholesale or retail outlets for individual, commercial, or industrial use which may contain volatile organic compounds, including household products, toiletries, aerosol products, rubbing compounds, windshield washer fluid, polishes and waxes, nonindustrial adhesives, space deodorants, moth control products, or laundry treatments.

Component—A piece of equipment, including, but not limited to, pumps, valves, compressors, and pressure relief valves,

which has the potential to leak volatile organic compounds.

Condensate—Liquids that result from the cooling and/or pressure changes of produced natural gas. Once these liquids are processed at gas plants or refineries or in any other manner, they are no longer considered condensates.

Custody transfer—The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Cutback asphalt—Any asphaltic cement which has been liquefied by blending with petroleum solvents (diluent).

Delivery vessel/tank-truck tank—Any tank-truck or trailer having a capacity greater than 1,000 gallons.

Drum (metal)—Any cylindrical metal shipping container with a nominal capacity equal to or greater than 12 gallons (45.4 liters) but equal to or less than 110 gallons (416 liters).

Exempt solvent—Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compounds.

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.

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.

Fugitive emission—Any gaseous or particulate contaminant entering the atmosphere without first passing through a vent designed to direct or control its flow.

Gasoline—Any petroleum distillate having a Reid vapor pressure (RVP) of four pounds per square inch (27.6 kPa) or greater which is produced for use as a motor fuel and is commonly called gasoline.

Gasoline bulk plant—A gasoline loading and/or unloading facility having a gasoline throughput less than 20,000 gallons (75,708 liters) per day, averaged over any consecutive 30-day period.

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

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.

Leak—A volatile organic compound concentration greater degrees than 10,000 parts per million by volume (ppmv) or the dripping of process fluid having a true vapor pressure greater than 0.147 psia (1.013 kpa) at 68 Degrees Fahrenheit (20 degrees Centigrade).

Liquid-mounted seal—A primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

Motor vehicle fuel dispensing facility—Any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

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 safe 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.

Non-flat architectural coating—Any coating which registers a gloss of 15 or greater on an 85 degree gloss meter or five or greater on a 60 degree gloss meter, and which is identified on the label as gloss, semigloss, or eggshell enamel coating.

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.

Pail (metal)—Any cylindrical metal shipping container with a nominal capacity equal to or greater than one gallon (3.8 liters) but less than 12 gallons (45.4 liters) and constructed of 29 gauge or heavier material.

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.

Polymer and resin manufacturing process—A process that produces any of the following polymers or resins: polyethylene, polypropylene, polystyrene, and styrenebutadiene latex.

Pounds of volatile organic compounds (VOC) per gallon of coating (minus water)—Basis for emission limits of most surface coating processes. Starting with one gallon of coating which contains a volume percentage of solids, a volume percentage of VOC, and a volume percentage of water, subtract the water percentage and recalculate an equivalent gallon of VOC and solids. The resulting new volume fraction of VOC times the

VOC density yields pounds of VOC per gallon of coating (minus water).

Process or processes—Any action, operation, or treatment embracing chemical, commercial, industrial, or manufacturing factors such as combustion units, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, gaseous matter, or visible emissions.

Property—All land under common control or ownership coupled with all improvements on such land, and all fixed or movable objects on such land, or any vessel on the waters of this state.

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.

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.

Source—A point of origin of air contaminants, whether privately or publicly owned or operated. Upon request of a source owner, the executive director shall determine whether multiple processes emitting air contaminants from a single point of emission will be treated as a single source or as multiple sources.

Specified solvent-using processes.

(A) **Cold solvent cleaning**—The batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing, and/or immersion while maintaining the solvent below its boiling point. Wipe cleaning (hand cleaning) is not included in this definition.

(B) **Open-top vapor degreasing**—The batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapors on the colder metal parts.

(C) **Conveyorized degreasing**—The continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvent.

Submerged fill pipe—A fill pipe that extends from the top of a tank to have a maximum clearance of six inches (15.2 cm) from the bottom or, when applied to a tank which is loaded from the side, that has a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.

Surface coating processes—Operations which utilize a coating application system.

(A) **Large appliance coating**—The coating of doors, cases, lids, panels, and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other large appliances.

(B) **Metal furniture coating**—The coating of metal furniture (tables, chairs, wastebaskets, beds, desks, lockers, benches, shelves, file cabinets, lamps, and other metal furniture products) or the coating of any metal part which will be a part of a nonmetal furniture product.

(C) **Coil coating**—The coating of any flat metal sheet or strip supplied in rolls or coils.

(D) **Paper coating**—The coating of paper and pressure-sensitive tapes (regardless of substrate and including paper, fabric, and plastic film) and related web coating processes on plastic film (including typewriter ribbons, photographic film, and magnetic tape) and metal foil (including decorative, gift wrap, and packaging).

(E) **Fabric coating**—The application of coatings to fabric, which includes rubber application (rainwear, tents, and industrial products such as gaskets and diaphragms).

(F) **Vinyl coating**—The use of printing or any decorative or protective topcoat applied over vinyl sheets or vinyl-coated fabric.

(G) **Can coating**—The coating of cans for beverages (including beer), edible products (including meats, fruit, vegetables, and others), tennis balls, motor oil, paints, and other mass-produced cans.

(H) **Automobile coating**—The assembly-line coating of passenger cars, or passenger car derivatives, capable of seating 12 or fewer passengers.

(I) **Light-duty truck coating**—The assembly-line coating of motor vehicles rated at 8,500 pounds (3,855.5 kg) gross vehicle weight or less and designed primarily for the transportation of property, or derivatives such as pickups, vans, and window vans.

(J) **Miscellaneous metal parts and products coating**—The coating of miscellaneous metal parts and products in the following categories:

(i) large farm machinery (harvesting, fertilizing, and planting machines, tractors, combines, etc.);

(ii) small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.);

(iii) small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.);

(iv) commercial machinery (computers and auxiliary equipment, typewriters, calculators, vending machines, etc.);

(v) industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.);

(vi) fabricated metal products (metal-covered doors, frames, etc.); and

(vii) any other category of coated metal products except the specified list in subparagraphs (A)-(I) of surface coating processes, which are included in the Standard Industrial Classification Code Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectrical machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), and Major Group 39 (miscellaneous manufacturing industries).

(K) Factory surface coating of flat wood paneling—Coating of flat wood

paneling products, including hardboard, hardwood plywood, particle board, printed interior paneling, and tile board.

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.

System or device—Any article, chemical, machine, equipment, or other contrivance, the use of which may eliminate, reduce, or control the emission of air contaminants to the atmosphere.

Transfer efficiency—The amount of coating solids deposited onto the surface of a part or product divided by the total amount of coating solids delivered to the coating application system.

True partial pressure—The absolute aggregate partial pressure (psia) of all volatile organic compounds in a gas stream.

True vapor pressure—The absolute aggregate partial vapor pressure (psia) of all volatile organic compounds at the temperature of storage, handling, or processing.

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.

Vapor-mounted seal—A primary seal mounted so there is an annular space underneath the seal. The annular vapor space is bound by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof or cover.

Vapor recovery system—Any control system that reduces volatile organic compound (VOC) emissions such that the aggregate true partial pressure of all VOC

vapors will not exceed a level of 1.5 psia (10.3 kPa) or other emission limits specified in Chapter 115 of this title (relating to Control of Volatile Organic Compounds).

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.

Vent—Any duct, stack, chimney, flue, conduit, or other device used to conduct air contaminants into the atmosphere.

Volatile organic compound (VOC)—Any compound of carbon or mixture of carbon compounds excluding methane, ethane, 1,1,1-trichloroethane (methyl chloroform), methylene chloride (dichloromethane), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

Volatile organic compound (VOC) water separator—Any tank, box, sump, or other container in which any VOC floating on or contained in water entering such tank, box, sump, or other container is physically separated and removed from water prior to outfall, drainage, or recovery of such water.

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

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCPDB No.*	Chemical	OCPDB No.*	Chemical
20	Acetal	380	Benzene
30	Acetaldehyde	390	Benzenedisulfonic acid
40	Acetaldol	400	Benzenesulfonic acid
50	Acetamide	410	Benzil
65	Acetanilide	420	Benzilic acid
70	Acetic acid	430	Benzoic acid
80	Acetic anhydride	440	Benzoin
90	Acetone	450	Benzonitrile
100	Acetone cyanohydrin	460	Benzophenone
110	Acetonitrile	480	Benzotrichloride
120	Acetophenone	490	Benzoyl chloride
125	Acetyl chloride	500	Benzyl alcohol
130	Acetylene	510	Benzyl amine
140	Acrolein	520	Benzyl benzoate
150	Acrylamide	530	Benzyl chloride
160	Acrylic acid and esters	540	Benzyl dichloride
170	Acrylonitrile	550	Biphenyl
180	Adipic acid	560	Bisphenol A
185	Adiponitrile	570	Bromobenzene
190	Alkyl naphthalenes	580	Bromonaphthalene
200	Allyl alcohol	590	Butadiene
210	Allyl chloride	592	1-butene
220	Aminobenzoic acid	600	n-butyl acetate
230	Aminoethylethanolamine	630	n-butyl acrylate
235	p-Aminophenol	640	n-butyl alcohol
240	Amyl acetates	650	s-butyl alcohol
250	Amyl alcohols	660	t-butyl alcohol
260	Amyl amine	670	n-butylamine
270	Amyl chloride	680	s-butylamine
280	Amyl mercaptans	690	t-butylamine
290	Amyl phenol	700	p-tert-butyl benzoic acid
300	Aniline	710	1,3-butylene glycol
310	Aniline hydrochloride	750	n-butyraldehyde
320	Anisidine	760	Butyric acid
330	Anisole	770	Butyric anhydride
340	Anthranilic acid	780	Butyronitrile
350	Anthraquinone	785	Caprolactam
360	Benzaldehyde	790	Carbon disulfide
370	Benzamide		

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCPEB No.*	Chemical	OCPEB No.*	Chemical
800	Carbon tetrabromide	1110	Cyanuric chloride
810	Carbon tetrachloride	1120	Cyclohexane
820	Cellulose acetate	1130	Cyclohexanol
840	Chloroacetic acid	1140	Cyclohexanone
850	m-chloroaniline	1150	Cyclohexene
860	o-chloroaniline	1160	Cyclohexylamine
870	p-chloroaniline	1170	Cyclooctadiene
880	Chlorobenzaldehyde	1180	Decanol
890	Chlorobenzene	1190	Diacetone alcohol
900	Chlorobenzoic acid	1200	Diaminobenzoic acid
905	Chlorobenzotrichloride	1210	Dichloroaniline
910	Chlorobenzoyl chloride	1215	m-dichlorobenzene
920	Chlorodifluoroethane	1216	o-dichlorobenzene
921	Chlorodifluoromethane	1220	p-dichlorobenzene
930	Chloroform	1221	Dichlorodifluoromethane
940	Chloronaphthalene	1240	Dichloroethyl ether
950	o-chloronitrobenzene	1244	1,2-dichloroethane (EDC)
951	p-chloronitrobenzene	1250	Dichlorohydrin
960	Chlorophenols	1270	Dichloropropene
964	Chloroprene	1280	Dicyclohexylamine
965	Chlorosulfonic acid	1290	Diethylamine
970	m-chlorotoluene	1300	Diethylene glycol
980	o-chlorotoluene	1304	Diethylene glycol diethyl ether
990	p-chlorotoluene	1305	Diethylene glycol dimethyl ether
992	Chlorotrifluoromethane	1310	Diethylene glycol monobutyl ether
1000	m-cresol	1320	Diethylene glycol mono-butyl ether acetate
1010	o-cresol	1330	Diethylene glycol monoethyl ether
1020	p-cresol	1340	Diethylene glycol monoethyl ether acetate
1021	Mixed cresols	1360	Diethylene glycol monomethyl ether
1030	Cresylic acid	1420	Diethyl sulfate
1040	Crotonaldehyde		
1050	Crotonic acid		
1060	Cumene		
1070	Cumene hydroperoxide		
1080	Cyanoacetic acid		
1090	Cyanogen chloride		
1100	Cyanuric acid		

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCFDB No.*	Chemical	OCFDB No.*	Chemical
1430	Difluoroethane	1760	Ethylcyanoacetate
1440	Diisobutylene	1770	Ethylene
1442	Diisodecyl phthalate	1780	Ethylene carbonate
1444	Diisooctyl phthalate	1790	Ethylene chlorohydrin
1450	Dikethene	1800	Ethylenediamine
1460	Dimethylamine	1810	Ethylene dibromide
1470	N,N-dimethylaniline	1830	Ethylene glycol
1480	N,N-dimethyl ether	1840	Ethylene glycol diacetate
1490	N,N-dimethylformamide	1870	Ethylene glycol dimethyl ether
1495	Dimethylhydrazine	1890	Ethylene glycol monobutyl ether
1500	Dimethyl sulfate	1900	Ethylene glycol monobutyl ether acetate
1510	Dimethyl sulfide	1910	Ethylene glycol monoethyl ether
1520	Dimethyl sulfoxide	1920	Ethylene glycol monoethyl ether acetate
1530	Dimethyl terephthalate	1930	Ethylene glycol mono- methyl ether
1540	3,5-dinitrobenzoic acid	1940	Ethylene glycol mono- methyl ether acetate
1545	Dinitrophenol	1960	Ethylene glycol mono- phenyl ether
1550	Dinitrotoluene	1970	Ethylene glycol mono- propyl ether
1560	Dioxane	1980	Ethylene oxide
1570	Dioxolane	1990	Ethyl ether
1580	Diphenylamine	2000	2-ethylhexanol
1590	Diphenyl oxide	2010	Ethyl orthoformate
1600	Diphenyl thiourea	2020	Ethyl oxalate
1610	Dipropylene glycol	2030	Ethyl sodium oxalacetate
1620	Dodecene	2040	Formaldehyde
1630	Dodecylaniline	2050	Formamide
1640	Dodecylphenol	2060	Formic acid
1650	Epichlorohydrin	2070	Fumaric acid
1660	Ethanol	2073	Furfural
1661	Ethanolamines	2090	Glycerol (Synthetic)
1670	Ethyl acetate		
1680	Ethyl acetoacetate		
1690	Ethyl acrylate		
1700	Ethylamine		
1710	Ethylbenzene		
1720	Ethyl bromide		
1730	Ethylcellulose		
1740	Ethyl chloride		
1750	Ethyl chloroacetate		

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCPDB No.*	Chemical	OCPDB No.*	Chemical
2091	Glycerol dichlorohydrin	2490	Methallyl chloride
2100	Glycerol triether	2500	Methanol
2110	Glycine	2510	Methyl acetate
2120	Glyoxal	2520	Methyl acetoacetate
2145	Hexachlorobenzene	2530	Methylamine
2150	Hexachloroethane	2540	n-methylaniline
2160	Hexadecyl alcohol	2545	Methyl bromide
2165	Hexamethylenediamine	2550	Methyl butynol
2170	Hexamethylene glycol	2560	Methyl chloride
2180	Hexamethylenetetramine	2570	Methyl cyclohexane
2190	Hydrogen cyanide	2590	Methyl cyclohexanone
2200	Hydroquinone	2620	Methylene chloride
2210	p-hydroxybenzoic acid	2630	Methylene dianiline
2240	Isoamylene	2635	Methylene diphenyl diisocyanate
2250	Isobutanol	2640	Methyl ethyl ketone
2260	Isobutyl acetate	2645	Methyl formate
2261	Isobutylene	2650	Methyl isobutyl carbinol
2270	Isobutyraldehyde	2660	Methyl isobutyl ketone
2280	Isobutyric acid	2665	Methyl methacrylate
2300	Isodecanol	2670	Methyl pentynol
2320	Isooctyl alcohol	2690	a-methylstyrene
2321	Isopentane	2700	Morpholine
2330	Isophorone	2710	a-naphthalene sulfonic acid
2340	Isophthalic acid	2720	B-naphthalene sulfonic acid
2350	Isoprene	2730	a-naphthol
2360	Isopropanol	2740	B-naphthol
2370	Isopropyl acetate	2750	Neopentanoic acid
2380	Isopropylamine	2756	o-nitroaniline
2390	Isopropyl chloride	2757	p-nitroaniline
2400	Isopropylphenol	2760	o-nitroanisole
2410	Ketene	2762	p-nitroanisole
2414	Linear alkyl sulfonate	2770	Nitrobenzene
2417	Linear alkylbenzene	2780	Nitrobenzoic acid (o,m, and p)
2420	Maleic acid	2790	Nitroethane
2430	Maleic anhydride		
2440	Malic acid		
2450	Mesityl oxide		
2455	Metanilic acid		
2460	Methacrylic acid		

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCPDB No.*	Chemical	OCPDB No.*	Chemical
2791	Nitromethane	3140	Quinone
2792	Nitrophenol	3150	Resorcinol
2795	Nitropropane	3160	Resorcylic acid
2800	Nitrotoluene	3170	Salicylic acid
2810	Nonene	3180	Sodium acetate
2820	Nonyl phenol	3181	Sodium benzoate
2830	Octyl phenol	3190	Sodium carboxymethyl cellulose
2840	Paraldehyde	3191	Sodium chloracetate
2850	Pentaerythritol	3200	Sodium formate
2851	n-pentane	3210	Sodium phenate
2855	1-pentene	3220	Sorbic acid
2860	Perchloroethylene	3230	Styrene
2882	Perchloromethyl mercaptan	3240	Succinic acid
2890	o-phenetidine	3250	Succinonitrile
2900	p-phenetidine	3251	Sulfanilic acid
2910	Phenol	3260	Sulfolane
2920	Phenolsulfonic acids	3270	Tannic acid
2930	Phenyl anthranilic acid	3280	Terephthalic acid
2940	Phenylenediamine	3290	
2950	Phosgene		and
2960	Phthalic anhydride	3291	Tetrachloroethanes
2970	Phthalimide	3300	Tetrachlorophthalic anhydride
2973	B-picoline	3310	Tetraethyllead
2976	Piperazine	3320	Tetrahydronaphthalene
3000	Polybutenes	3330	Tetrahydrophthalic anhydride
3010	Polyethylene glycol	3335	Tetramethyllead
3025	Polypropylene glycol	3340	Tetramethylenediamine
3063	Propionaldehyde	3341	Tetramethylethylene- diamine
3066	Propionic acid	3349	Toluene
3070	n-propyl alcohol	3350	Toluene-2,4-diamine
3075	Propylamine	3354	Toluene-2,4-diisocyanate
3080	Propyl chloride	3355	Toluene diisocyanates (mixture)
3090	Propylene	3360	Toluene sulfonamide
3100	Propylene chlorohydrin		
3110	Propylene dichloride		
3111	Propylene glycol		
3120	Propylene oxide		
3130	Pyridine		

TABLE I.
SYNTHETIC ORGANIC CHEMICALS

OCFDB No.*	Chemical	OCFDB No.*	Chemical
3370	Toluene sulfonic acids		
3380	Toluene sulfonyl chloride		
3381	Toluidines		
3390,			
3391,			
and			
3393	Trichlorobenzenes		
3395	1,1,1-trichloroethane		
3400	1,1,2-trichloroethane		
3410	Trichloroethylene		
3411	Trichlorofluoromethane		
3420	1,2,3-trichloropropane		
3430	1,1,2-trichloro-1,2,2- trifluoroethane		
3450	Triethylamine		
3460	Triethylene glycol		
3470	Triethylene glycol dimethyl ether		
3480	Triisobutylene		
3490	Trimethylamine		
3500	Urea		
3510	Vinyl acetate		
3520	Vinyl chloride		
3530	Vinylidene chloride		
3540	Vinyl toluene		
3541	Xylenes (mixed)		
3560	o-xylene		
3570	p-xylene		
3580	Xylenol		
3590	Xylidine		

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

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.