

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

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

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

**§115.526. Recordkeeping Requirements.** For the counties referenced in §115.529 of this title (relating to Counties and Compliance Schedules), the owner or operator of any perchloroethylene dry cleaning facility shall maintain the following information for two years and be made available for review upon request by authorized representatives of the Texas Air Control Board, United States Environmental Protection Agency, and local air pollution control agencies:

(1) a record of control equipment maintenance, such as replacement of the carbon in a carbon adsorption unit;

(2) a record of the results of visual leak inspections conducted in accordance with §115.524 of this title (relating to Inspection Requirements); and

(3) the results of all tests conducted in accordance with the requirements described in §115.525 of this title (relating to Testing Requirements).

**§115.527. Exemptions.** For the counties referenced in §115.529 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

(1) Coin-operated perchloroethylene dry cleaning facilities are exempt from the provisions of this undesignated head (relating to Perchloroethylene Dry Cleaning Systems).

(2) Any perchloroethylene dry cleaning facility located in Brazoria, El Paso, Galveston, Gregg, Jefferson, Nueces, Orange, or Victoria County which, when uncontrolled, would emit a combined weight of volatile organic compounds of less than 550 pounds (249.5 kg) in any consecutive 24-hour period is exempt from the provisions of this undesignated head relating to perchloroethylene dry cleaning systems.

**§115.529. Counties and Compliance Schedules.** All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and

Victoria Counties shall be in compliance with this undesignated head relating to perchloroethylene dry cleaning systems in accordance with the following schedules.

(1) All compliance schedules which have expired prior to the effective date of the adoption to this section, in accordance with §115.930 of this title (relating to Compliance Dates).

(2) All persons in Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Orange, and Tarrant Counties affected by the provisions of §115.526 of this title (relating to Recordkeeping Requirements) shall be in compliance as soon as practicable but no later than August 31, 1990.

(3) All persons required to implement controls as a result of the removal of the exemptions previously granted for inadequate space or insufficient steam capacity shall be in compliance as soon as practicable but no later than August 31, 1990.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas on July 19, 1989.

TRD-8906410

Allen Eli Bell  
Executive Director  
Texas Air Control Board

Proposed date of adoption: December 15, 1989

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

## Pharmaceutical Manufacturing Facilities

### • 31 TAC §§115.531-115.537, 115.539

The Texas Air Control Board (TACB) proposes new §§115.531-115.537, and §115.539, concerning pharmaceutical manufacturing facilities, which contain the provisions of existing §§115.231-115.233, concerning pharmaceutical manufacturing facilities in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties. This new undesignated head will be included in a proposed new Subchapter F, concerning miscellaneous industrial sources. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the Post-87 State Implementation Plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning control of air pollution from volatile organic compounds. Since the proposed changes are extensive, the staff has determined that it would be administratively

more efficient to propose concurrently the repeal of the existing Chapter 115 in its entirety and the addition of a new Chapter 115.

The proposed new §115.531, concerning emission specifications, establishes emission limits for volatile organic compounds (VOC) from affected sources. The proposed new §115.532, concerning control requirements, specifies the applicable equipment and procedural requirements. The proposed new §115.533, concerning alternate control requirements, provides for executive director approval for the use of alternate technology which will result in equivalent VOC emission reductions. The proposed new §115.534, concerning inspection requirements, specifies applicable inspection procedures and schedules. The proposed new §115.535, concerning testing requirements, identifies federally approved test methods and procedures to be used to determine compliance with applicable controls or exemptions. The proposed new §115.536, concerning recordkeeping requirements, specifies the type of records to be kept to document satisfaction of exemption criteria or performance of applicable control devices. The proposed new §115.537, concerning exemptions, specifies the types of facilities which are exempted from the requirements of these sections. The proposed new §115.539, concerning counties and compliance schedules, requires all affected facilities to be in compliance in accordance with all expired schedules. Furthermore, affected sources in Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Orange, and Tarrant Counties must comply with applicable recordkeeping requirements by December 31, 1990.

Bennie Engelke, director of management and staff services, has determined that for the first five years the proposed sections are in effect, there would be no fiscal implications for state and local governments or for small businesses. Economic costs to individuals and businesses required to implement the proposed measures are associated only with recordkeeping requirements and are estimated as follows: annual cost per facility in 1990 is \$0; and in 1991-1994 is \$5,000.

Les Montgomery, P.E., director of technical support and regulation development program, has determined that for each of the first five years the sections as proposed are in effect, the public benefit anticipated as a result of implementing the sections will be more effective and consistent enforcement associated with the control of VOC. In addition, these measures are necessary to address the requirements of Phase I of the Post-87 SIP revisions.

Public hearings on this proposal are scheduled for the following times and places: August 15, 1989, 10 a.m., Texas Air Control Board Auditorium, 6330 Highway 290 East, Austin; August 15, 1989, 7 p.m., City of Houston, Pollution Control Building Auditorium, 7411 Park Place Boulevard, Houston; August 16, 1989, 7 p.m., City Council Chambers, Second Floor, 2 Civic Center Plaza, El Paso; and August 17, 1989, 4 p.m., Arlington Public Library, 101 East Abram, Arlington.

Copies of the proposed sections are available at the central office of the TACB, 6330 Highway 290 East, Austin, Texas 78723, and at all TACB regional offices. Public comment, both oral and written, on the proposed changes is

invited at the hearings. The TACB would appreciate receiving five copies of testimony prior to or at the hearings. Written testimony received by the Regulation

Development Section by 4 p.m. on August 25, 1989, at the TACB central office will be included in the hearing record.

The new sections are proposed under Texas Civil Statutes, Article 4477-5, §3.09(a), which provide the TACB with the authority to make

rules and regulations consistent with the general intent and purposes of the Texas Clean Air Act and to amend any rule or regulation the TACB makes.

**§115.531. Emission Specifications.** For the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), the owner or operator of a synthesized pharmaceutical manufacturing fa-

cility shall satisfy the following emission specifications.

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

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

(2) Air dryers and exhaust systems. Volatile organic compound emissions from all air dryers and production equipment exhaust systems shall be reduced to at least 33 lb/day (15 kg/day) or controlled in accordance with §115.532(4) of this title (relating to Control Requirements).

(3) Loading facilities. Volatile organic compound emissions from truck or railcar deliveries to storage tanks at loading facilities shall be controlled in accordance with §115.532(4) of this title (relating to Control Requirements).

**§115.532. Control Requirements.** For the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), the owner or operator of a synthesized pharmaceutical manufacturing facility shall provide the following specified controls.

(1) Tanks.

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

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

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

(3) Leaks.

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

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

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

**§115.533. Alternate Control Requirements.** For all affected persons in the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the executive director in accordance with §115.910 of this title (relating to Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

**§115.534. Inspection Requirements.** For all affected persons in the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), the following inspection requirements shall apply.

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

(2) Volatile organic compound 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.

**§115.535. Testing Requirements.** For the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), compliance with this undesignated head (relating to Pharmaceutical Manufacturing Facilities) shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 Code of Federal Regulations 60, Appendix A) for determining flow rate, 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 25 (40 Code of Federal Regulations 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

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

(5) determination of true vapor pressure using ASTM Test Method D323-

82 for the measurement of Reid Vapor Pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989; or

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

**§115.536. Recordkeeping Requirements.** For the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), the following recordkeeping requirements shall apply.

(1) The owner or operator of any pharmaceutical manufacturing facility which utilizes a surface condenser to control emissions of volatile organic compounds from process units affected by §115.531(1) of this title (relating to Emission Specifications) shall record the outlet gas temperature.

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

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

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

(ii) the total amount of volatile organic compounds recovered by carbon adsorption or other solvent recovery systems during a calendar month; or

(iii) the daily emission rate of volatile organic compounds from the control device;

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

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

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

(B) the daily emissions rate of volatile organic compounds.

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

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

**§115.537. Exemptions.** For the counties referenced in §115.539 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

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

(2) Storage tanks at loading facilities that store volatile organic compounds with vapor pressures less than or equal to 4.1 psia (28 kPa) at 68°F (20°C) are exempt from the requirements of §115.531(3) of this title (relating to Emission Specifications).

(3) Storage tanks containing volatile organic compounds with vapor pressures less than or equal to 1.5 psia (10.3 kPa) at 68°F (20°C) are exempt from the requirements of §115.532(1)(B) of this title (relating to Control Requirements).

(4) Centrifuges and filters which process liquids containing volatile organic compounds with vapor pressures less than 0.5 psia (3.4 kPa) at 68°F (20°C) are exempt from the requirements of §115.532(2) of this title (relating to Control Requirements).

(5) Any facility in Brazoria, Dallas, El Paso, Galveston, Gregg, Jefferson, Nueces, Orange, Tarrant, or Victoria County which, when uncontrolled, will emit a combined weight of volatile organic compounds less than 550 pounds (249.5 kg) in any continuous 24-hour period is exempt from the provisions of §115.531 of this title (relating to Emission Specifications), and §115.532 of this title (relating to Control Requirements).

(6) Any facility located in Harris County which, when uncontrolled, will emit a combined weight of volatile organic compounds less than 15 pounds (6.8 kg) in any continuous 24-hour period is exempted from the provisions of §115.531 of this title (relating to Emission Specifications), and §115.532 of this title (relating to Control Requirements).

**§115.539. Counties and Compliance Schedules.** All affected persons in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties shall be in compliance with this undesignated head (relating to Pharmaceutical Manufacturing Facilities) in accordance with the following schedules.

(1) All compliance schedules which have expired prior to the effective date of the adoption to this section, in accordance with §115.930 of this title (relating to Compliance Dates).

(2) All persons in Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Orange, or Tarrant Counties affected by the provisions of §115.536 of this title (relating to Recordkeeping Requirements) shall be in compliance with this section as soon as practicable but no later than December 31, 1990.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's authority to adopt.

Issued in Austin, Texas on July 19, 1989.

TRD-8906404 Allen Eli Bell  
Executive Director  
Texas Air Control Board

Proposed date of adoption: December 15, 1989

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

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**Subchapter G. Consumer-Related Sources**  
**Consumer-Solvent Products**  
• 31 TAC §§115.612-115.613, 115.615, 115.617, 115.619

The Texas Air Control Board (TACB) proposes new §§115.612-115.613, 115.615, 115.617, and 115.619, concerning consumer-solvent products, which contain the provisions of existing §§115.291, 115.293, and 115.294, concerning specified consumer-solvent products in Dallas and Tarrant Counties. This new undesignated head will be included in a proposed new Subchapter G, concerning consumer-related sources. While in most instances the proposal does not involve new requirements, the sections have been significantly reorganized to reduce the inconsistencies which have developed as a result of numerous independent revisions in the past. Several substantive changes, however, are also proposed in order to respond to the Environmental Protection Agency requirements of Phase I of the Post-87 State Implementation Plan (SIP) revisions.

These changes are a part of a series of substantial proposed revisions to Chapter 115, concerning control of air pollution from volatile organic compounds. Since the pro-