

(4) 12% by weight for mixing with dense graded aggregate when used to produce a mix designed to have 10% or less voids when fully compacted.

§115.176. Counties and Compliance Schedule.

(a)-(c) (No change.)

(d) The provisions of §115.171(c)-(d) of this title (relating to Cutback Asphalt) shall apply only within Dallas and Tarrant Counties. All affected persons shall be in compliance with this section as soon as practicable, but not later than December 31, 1988.

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 March 24, 1988.

TRD-8802993

Allen Eli Bell
Executive Director
Texas Air Control Board

Effective date: April 14, 1988

Proposal publication date: October 2, 1987

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

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Surface Coating Processes in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties.

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• 31 TAC §§115.191, 115.193, 115.194

The Texas Air Control Board (TACB) adopts amendments to §§115.191, 115.193, and 115.194, are adopted with changes to the proposed text published in the October 2, 1987 issue of the *Texas Register* (12 TexReg 3529-3531).

The amendments to §115.191, concerning Emission Limitations, establish limits on the VOC content of coatings and wipe-down solvents used in automobile refinishing and coatings sold or offered for sale as architectural coatings in Dallas and Tarrant Counties. Specified cleanup equipment and procedures for automobile refinishing and test methods for determining compliance with the automobile refinishing and architectural coating limitations were also adopted. Proposed requirements for the capture and control of fugitive emissions from industrial surface coating operations and additional limitations on wood and plastics coating operations were withdrawn. Amendments to §115.193, revised applicable references to ensure consistency with adopted changes to §115.191. Amendments to §115.194, concerning Compliance Schedule and Counties, requires final compliance with automobile refinishing and architectural coating requirements by no later than December 31, 1989. These amendments are part of a series of additions to Chapter 115 to satisfy requirements by the United States Environmental Protection Agency (EPA) to demonstrate attainment for ozone in the state

implementation plan (SIP) revisions for Dallas and Tarrant Counties.

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.

Public hearings were held October 28, 1987, in Cleburne and Rockwall, and October 29, 1987, in Arlington to receive testimony regarding the proposed revisions. Testimony was received from 49 commenters representing local governments, affected industries, the United States Air Force, and EPA. All of the commenters may be categorized as against the proposal.

Thirty-one commenters addressed the proposed surface coating fugitive control requirements. Local officials, while supporting any control measure necessary to demonstrate attainment of the ozone standard, considered the surface coating fugitive rule among the least favorable options. One individual and EPA supported the proposed controls but recommended additional requirements. Industry officials opposed the proposed controls because the requirements were not cost effective, in many cases were technologically infeasible, would damage the economic competitiveness of small businesses in Dallas and Tarrant Counties, would discourage the use of low-solvent technologies, and could actually stimulate ozone formation by increasing nitrogen oxide emissions. The information provided as testimony documented the technical, economic, and administrative difficulties of imposing these requirements on surface coating operations which have already complied with existing regulations. The emission reductions from the proposed controls were not required for a demonstration of attainment.

Fifteen commenters addressed the proposed automobile refinishing control requirements. Local officials supported this control measure as necessary to demonstrate attainment. EPA questioned the enforceability of the requirements and recommended changes to characterize the affected coatings based on specific formulation criteria and as delivered to the spray equipment. EPA also specified that final compliance by December 31, 1989, was required. Industry officials opposed the proposed controls because no existing low-solvent technology for several coatings currently used in automobile refinishing was available which could provide acceptable results. However, several commenters recommended alternative control techniques and requirements. These included VOC limitations on various types of coatings currently used in automobile refinishing; VOC limitations on preparation and cleanup solvents; improved application equipment, techniques, and training; and controlled waste management programs. Information was provided indicating that a single blanket emission limitation on all coatings used in automobile refinishing was inappropriate. However, significant emission reductions can be achieved through the adoption of separate emission limitations on various coating families and other solvents used in the industry and the

enforcement of specific equipment and operation requirements. Suggested changes to describe compliant coatings as delivered to the spray equipment and to adopt approved test methods for determining coating characteristics should improve the enforceability of these control requirements. Compliance by December 31, 1989, may be reasonably expected.

Seventeen commenters addressed the proposed architectural coating control requirements. Local officials supported the proposed controls as necessary to demonstrate attainment. EPA recommended compliance strategies, including recordkeeping provisions, and specified that final compliance by December 31, 1989, was required. Industry officials opposed the proposed limitation because most products do not have low-VOC alternatives, reformulation is costly and time consuming, and controls would result in little actual emission reductions. However, they suggested that alternative limitations or exemptions should be provided for various families of coatings or specialty coatings. Information provided indicated that, while many commonly used specialty coatings can not be reasonably expected to comply with the proposed limitation, significant emission reductions can be achieved by establishing VOC limits for various families of coatings. While classification of coating families is expected to eliminate the need for specific exemptions, the definition of architectural coating should exclude paints sold in containers of one pint or less, and coatings used on roadways, pavement, and swimming pools. Aerosol products may also be excluded since they are inventoried separately from other coatings. The TACB staff is considering additional rulemaking to include a requirement for limited recordkeeping and an enforcement plan for annual investigations at a sampling of affected sales locations. Compliance by December 31, 1989, may be reasonably expected.

Seventeen commenters address the proposed wood and plastics coating control requirements. Local officials, while supporting any control measure necessary to demonstrate attainment, considered the proposed controls on wood and plastic coating to be among the least favorable of all options. EPA specified that final compliance by December 31, 1989, was required. Industry opposed the proposed limitations on wood and plastic coatings because many products require specialized coatings which could not satisfy the requirements. The information provided documented the technical, economic, and administrative difficulties of imposing controls on wood and plastic coatings without a detailed consideration of the many issues raised. The emission reductions from the proposed controls are not required for a demonstration of attainment.

These amendments are adopted 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.

§115.191. Emission Limitations.

(a) No person may cause, suffer, allow, or permit volatile organic compound emissions from the surface coating pro-

cesses (defined in §101.1 of this title (relating to Definitions)) affected by paragraphs (1)-(11) of this subsection to exceed the specified emission limits, which are based on daily weighted average, except for those in paragraph (8), of this subsection as detailed, for those in paragraph (10) of this subsection which are based on paneling surface area, and those in paragraph (11) of this subsection which are based on the volatile organic compound content of architectural coatings sold or offered for sale. Exempt solvent, as used in this section, shall mean any solvent consisting of compounds excluded from the definition of volatile organic compound in §101.1 of this title (relating to Definitions).

(1)-(7) (No change.)

(8) Automobile and light-duty truck coating.

(A)-(C) (No change).

(D) Volatile organic compound emissions from the coatings or solvents used in automobile refinishing in Dallas and Tarrant counties based on an assumed 30% transfer efficiency from an air spray applicator or equivalent shall not exceed the following limits:

(i) 2.1 pounds per gallon (0.25 kg/liter) of coating (minus water and exempt solvent) or 3.0 pounds per gallon (0.36 kg/liter) of solids applied for primers or primer/surfacers;

(ii) 5.2 pounds per gallon (0.62 kg/liter) of coating (minus water and exempt solvent) or 17.9 pounds per gallon (2.13 kg/liter) of solids applied for acrylic enamel coatings;

(iii) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) or 16.1 pounds per gallon (1.92 kg/liter) of solids applied for alkyd enamel coatings;

(iv) 5.2 pounds per gallon (0.62 kg/liter) of coating (minus water and exempt solvent) or 17.9 pounds per gallon (2.13 kg/liter) of solids applied for clear coatings;

(v) 6.2 pounds per gallon (0.74 kg/liter) of coating (minus water and exempt solvent) or 41.3 pounds per gallon (4.92 kg/liter) of solids applied for base coatings;

(vi) 6.2 pounds per gallon (0.74 kg/liter) of coating (minus water and exempt solvent) or 41.3 pounds per gallon (4.92 kg/liter) of solids applied for lacquers; and

(vii) 1.4 pounds per gallon (0.17 kg/liter) of wipe-down solvents.

(E) Automobile refinishing operations in Dallas and Tarrant counties shall minimize volatile organic compound

emissions during equipment cleanup by the following procedures:

(i) install and operate a system which totally encloses spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures;

(ii) recycle all wash solvents from an enclosed reservoir which must be kept closed at all times except when being refilled with fresh solvent solution;

(iii) dispose of all waste solvents and associated cleaning materials in closed containers.

(9)-(10) (No change).

(11) Architectural coating. The volatile organic compound content of any coating sold or offered for sale as an architectural coating in Dallas and Tarrant counties shall not exceed the following limits:

(A) 0.7 pounds per gallon (0.08 kg/liter) of coating (minus water and exempt solvent) or 3.0 pounds per gallon (0.36 kg/liter) of solids for exterior flat latex paints;

(B) 0.8 pounds per gallon (0.10 kg/liter) of coating (minus water and exempt solvent) or 3.1 pounds per gallon (0.37 kg/liter) of solids for interior flat latex paints;

(C) 2.2 pounds per gallon (0.26 kg/liter) of coating (minus water and exempt solvent) or 5.0 pounds per gallon (0.60 kg/liter) of solids for nonflat or washable flat latex paints;

(D) 3.5 pounds per gallon (0.42 kg/liter) of coating (minus water and exempt solvent) or 7.6 pounds per gallon (0.90 kg/liter) of solids for interior alkyd paints;

(E) 4.0 pounds per gallon (0.48 kg/liter) of coating (minus water and exempt solvent) or 8.9 pounds per gallon (1.06 kg/liter) of solids for exterior alkyd paints;

(F) 4.5 pounds per gallon (0.54 kg/liter) of coating (minus water and exempt solvent) or 11.5 pounds per gallon (1.37 kg/liter) of solids for epoxy paints;

(G) 6.0 pounds per gallon (0.72 kg/liter) of coating (minus water and exempt solvent) or 31.6 pounds per gallon (3.76 kg/liter) for exterior stains;

(H) 7.0 pounds per gallon (0.84 kg/liter) of coating (minus water and exempt solvent) or 100.0 pounds per gallon (11.90 kg/liter) of solids for interior stains;

(I) 4.5 pounds per gallon (0.54 kg/liter) of coating (minus water and exempt solvent) or 11.5 pounds per gallon (1.37 kg/liter) of solids for urethane coatings;

(J) 4.5 pounds per gallon (0.54 kg/liter) of coating (minus water and exempt solvent) or 11.5 pounds per gallon (1.37 kg/liter) of solids for alkyd varnishes; and

(K) 5.6 pounds per gallon (0.67 kg/liter) of coating (minus water and exempt solvent) or 23.4 pounds per gallon (2.79 kg/liter) of solids for nitrocellulose-based lacquers.

(b) Compliance with subsection (a)(8)(D) and (a)(11) of this section shall be determined by applying the following test methods, as appropriate:

(1) Test Method 24 (40 Code of Federal Regulations 60, Appendix A);

(2) ASTM Test Methods D 1186-06.01, D 1200-06.01, D 3794-06.01, D 244-83, D 323-72, D 97-66, D 2832-69, D 1644-75, and D 3960-81;

(3) procedures for certifying quantity of volatile organic compounds emitted by paint, ink, and other coatings (EPA 450/3-84-01, December, 1984); or

(4) an equivalent test method approved by the executive director.
§115.193. Exemptions.

(a)-(b) (No change).

(c) The following coating operations are exempt from the application of §115.191(a)(9) of this title (relating to Emission Limitations):

(1) exterior of airplanes except as required by §115.191(a)(9)(A) (v) of this title (relating to Emission Limitations);

(2) automobile refinishing except as required by §115.191(a)(8)(D) of this title (relating to Emission Limitations);

(3)-(5) (No change).

(6) any surface coating process or processes at a specific property for which the executive director has approved requirements different from those in §115.191(a)(9) of this title (relating to Emission Limitations) based upon his determination that such requirements will result in the lowest emission rate that is technologically and economically reasonable. When he makes such a determination, the executive director shall specify the date or dates by which such different requirements shall be met and shall specify any requirements to be met in the interim. If the emissions resulting from such different requirements equal or exceed 25 tons a year for a property, the determinations for that property shall be reviewed every two years.

(d) The following coating operations are exempt from the application of §115.191(a)(10) of this title (relating to Emission Limitations):

(1)-(3) (No change).

(e) After December 31, 1987, in Dallas and Tarrant Counties, only those surface coating operations which when uncontrolled will emit a combined weight of volatile organic compounds of less than 100 pounds (45.4 kg) per day, except aircraft exterior prime coating controlled by §115.191(a)(9)(A), etbi>(v) of this title (relating to Emission Limitations) and automobile refinishing controlled by §115.191(a)(8)(D) of this title (relating to Emission Limitations), shall be exempt from the provisions of §115.191 of this title (relating to Emission Limitations).

§115.194. Compliance Schedule and Counties.

(a) All affected persons within Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria counties shall be in compliance with §§115.91-115.94 of this title (relating to Surface Coating in Brazoria, Dallas, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties) except for §115.191(a)(7)(B), (a)(8)(B), and (a)(9)(A)(v) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1982, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

(b) All affected persons within the counties listed in subsection (a) of this section shall be in compliance with §115.191(a)(7)(B) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1985, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

(c) All affected persons within the counties listed in subsection (a) of this section shall be in compliance with §115.191(a)(8)(B) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1986, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

(d) All affected persons within the counties listed in subsection (a) of this section shall be in compliance with §115.191(a)(9) and (a)(10) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1982, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1980.

(e) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.191(a)(9)(A)(v) of this title (relating to Emission Limitations) as soon as

practicable, but no later than December 31, 1987, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1985.

(f) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.191(a)(8)(D) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1989.

(g) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.191(a)(11) of this title (relating to Emission Limitations) as soon as practicable, but no later than December 31, 1989.

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 March 24, 1988.

TRD-8802994

Allen Eli Bell
Executive Director
Texas Air Control Board

Effective date: April 4, 1988

Proposal publication date: October 2, 1987

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

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Graphic Arts (Printing) by
Rotogravure and
Flexographic Processes

• 31 TAC §§115.201-115.203

The Texas Air Control Board (TACB) adopts amendments to §§115.201-115.203, with changes to the proposed text published in the October 2, 1987, issue of the *Texas Register* (12 TexReg 3531-3532). The amendments concern Graphic Arts (Printing) By Rotogravure and Flexographic Processes in Brazoria, Dallas, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties.

The amendment to §115.201, concerning control requirements, establish the approved test methods which shall be used to determine compliance with applicable control requirements at graphic arts facilities in Dallas and Tarrant counties. The proposed change to require more stringent capture and control limitations on existing graphic arts facilities is deleted. The amendment to §115.202, concerning exemptions, lower the applicable exemption level for graphic arts facilities in Dallas and Tarrant counties from 100 tons per year to 50 tons per year. The 100 pounds per day exemption level included in the proposal is deleted. The amendment to §115.203, concerning compliance schedule and counties, require the smaller sources affected by the lower exemption level specified in §115.202 to be in compliance no later than December 31, 1989, and to submit a final control plan to the TACB by December 31, 1988. These amendments are part of a series of additions to Chapter 115 to satisfy requirements by the United States Environmental Protection Agency (EPA) to demonstrate attainment for ozone in the State Implementation Plan (SIP) revisions for Dallas and Tarrant counties.

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.

Public hearings were held October 28, 1987, in Cleburne and Rockwall, and October 29, 1987, in Arlington to receive testimony regarding the proposed revisions. Testimony was received from 14 commenters representing local governments, EPA, industry, and interested citizens. Twelve of the commenters were against the proposal, while the North Central Texas Council of Governments and the City of Richardson were in favor of the proposal as necessary to demonstrate attainment of the ozone standard.

EPA and Brandt Mannchen recommended specifying appropriate test methods to be used to determine compliance with the proposed limitations. Furthermore, EPA specified suggested recordkeeping requirements for affected sources and the examination of proposed exemption levels. EPA also specified that final compliance by December 31, 1989, was required.

Industry officials opposed increasing the control requirements on graphic arts facilities which have already expended considerable resources to comply with existing regulations and suggested adequate emission reductions could be achieved by extending existing controls to smaller sources. Several commenters also argued that the more stringent control limits proposed were not technologically practical nor cost-effective, would discourage the use of low-solvent technology, and would increase emissions of nitrogen oxides. Overwraps, Inc. recommended that limitations be based on annual rather than daily averages of the inks used at affected facilities.

The information provided documented the technical, economic, and administrative difficulties of imposing more stringent control limits on sources which have already complied with existing regulations. However, reductions may be obtained from expanding the existing control limitations to smaller sources by adopting an exemption level of 50 tons of VOC per year. This control measure would allow affected sources to utilize currently available control technology to achieve reasonable emission reductions needed for a demonstration of attainment. EPA policy has prohibited the use of annual averaging of emissions in an ozone control strategy. Adoption of approved test methods to effectively monitor the VOC content of applicable inks and to determine the VOC concentration of vent gases from incineration or carbon adsorption is considered appropriate. Since compliance with the limitations on graphic arts facilities does not require an assessment of an average concentration of VOC over a period of time, detailed recordkeeping does not appear critical. Control of sources with less than the 50 tons per year as identified by the exemption raises questions of technical practicality, cost-effectiveness, and enforceability which the TACB staff is unable to address at this time. Compliance by December 31, 1989, can be expected.