(2) Compliance with §115.412(2)(D)(iv) and (3) (A)(ii) of this title (relating to Control Requirements) and §115.413(2) of this title (relating to Alternate Control Requirements) shall be determined by applying the following test methods, as appropriate:

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

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

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

(D) 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

(E) minor modifications to these test methods and procedures approved by the executive director.

§115.419. 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 concerning degreasing processes, in accordance with the following schedules.

(1) All affected persons shall be in compliance with all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates).

(2) All affected persons shall be in compliance with the provisions of §115. 416 of this title (relating to Recordkeeping Requirements):

(A) in Dallas and Tarrant Counties as soon as practicable but no later than August 31, 1990; and

(B) in Brazoria, El Paso, Galveston, Harris, Jefferson, and Orange Counties as soon as practicable but no later than December 31, 1990.

(3) All affected persons in Dallas and Tarrant Counties required to implement controls as a result of the loss of the exemption as specified in §115.417(8) of this title (relating to Exemptions) shall be in compliance as soon as practicable but no later than August 31, 1990.

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-9000966 Allen Eli Bell
Executive Director
Texas Air Control Board

Effective date: February 19, 1990

Proposal publication date: July 28, 1989

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

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Surface Coating Processes

• 31 TAC §§115.421-115.423, 115.425-115.427, 115.429

The Texas Air Control Board (TACB) adopts new §§115.421-115.423, §§115. 425-115.427, and §115.429. Sections 115.425, 115.427, and 115.429 are adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3665). Sections 115.421-115.423 and 115.426 are adopted without changes and will not be republished.

The new §115.421, concerning emission specifications, establishes the maximum volatile organic compound (VOC) content for specified coatings. The new §115.422, concerning control requirements, defines the type of control or technologies required to achieve necessary emission reductions. The new §115. 423, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.425, 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. 426, 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 §115.427, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.429, 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 I Plan 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. Five commenters opposed the proposal, while no one testified in support.

One commenter, EPA, stated that compliance with all applicable surface coating emission limits must be achieved on a line-by-line basis. EPA has advocated a very narrow concept for the definition of a line that includes only the apparatus necessary to apply coatings to a single product unit. The TACB staff has interpreted the definition of line in a broader way, to include all the apparatus at a facility used to produce similar products which are covered by the same coating limitation. This distinction is important when averaging emissions from compliant and non-compliant coatings at a single facility to demonstrate overall daily compliance with the rule. This broader interpretation provides for the emission reductions expected from the rule if all coatings used satisfied the applicable emission limits, while allowing a facility to use a limited amount of higher solvent coatings for specialty purposes. EPA's more limited interpretation severely limits or eliminates this flexibility with no significant air quality benefit.

Three commenters; EPA, General Motors Corporation (GM), and one individual; suggested that the amount of exempt solvents be subtracted during the calculation to determine compliance of a specific coating or, alternatively, that all emission limitations be established on a pounds per gallon of solids basis. The commenters also supported the requirement that all equivalency determinations be based on a solids basis. Subtracting exempt solvents from the proposed coating limitations, expressed in pounds of VOC per gallon of coating (minus water), would substantively change the control requirements of the rule and directly contradict previously approved board orders which depend on the substitution of exempt solvents. However, a complete conversion of the coating limitations to a solids basis would satisfy the commenters' concerns and would characterize actual VOC emissions more clearly. This option will be evaluated in the future and may be considered in subsequent rulemaking, if appropriate. Equivalency determination will continue to be computed on a solids basis.

One individual suggested that in situations where two limitations may apply, the most stringent, rather than the least stringent, should be required. Compliance determinations typically are based on the most stringent applicable control limitation for a specific facility or source category. However, higher VOC limits must be allowed for miscellaneous metal parts coating processes which utilize specialized application methods or must exhibit specialized qualities in order to satisfy their intended purposes. If the more stringent, lower solvent, coating limitation was required, these specialized coatings could no longer be used, and the desired or necessary product quality would suffer.

One commenter, EPA, indicated that organisols and plastisols cannot be considered as a vinyl coating and cannot be used in averaging emissions in order to

determine compliance. Organisols and plastisols are applied to vinyl surfaces in a manner and for purposes similar to other coatings. No information to support the distinction of these materials from other coatings was submitted in the testimony, therefore, no change appears warranted at this time.

One commenter, EPA, recommended that a test method entitled, "Protocol for Determining the Daily VOC Emission Rate of Automobile and Light-Duty Truck Topcoat Operations" be incorporated for the determination of compliance of the topcoat limitation. The recommended document is accepted by both EPA and industry as a standard methodology for determining applicable emissions. Incorporation of this method, therefore, appears reasonable.

One commenter, EPA, stated that General Rule §101.23 could not be federally approved since cross-line averaging must follow the emission trading policy published in the December 4, 1986 Federal Register (51 FR 43814). Revisions to §101.23 are beyond the scope of this rulemaking and cannot be considered at this time.

One commenter, EPA, suggested that capture efficiency testing be required when vapor capture and abatement equipment is utilized to comply with the surface coating rule in order to determine actual compliance with the overall control requirement of 80%. This commenter also suggested the TACB adopt the standard capture efficiency test method being developed by EPA once it is finalized. Another commenter, GM, suggested that a requirement for a capture efficiency of 80% was more consistent with the actual coating limitations. Capture efficiency testing may be appropriate during initial compliance testing and upon request by the TACB staff to confirm continued compliance. However, this determination of capture efficiency may be calculated using material measurements and mass balance computations and does not necessarily need to include physical monitoring of emissions. Methodologies published by EPA will be evaluated and considered for incorporation in the rule in the future. The requirements for add-on controls were intended to result in at least as stringent a control measure as the coating limitations in reducing emissions. These add-on controls may actually be more stringent and result in greater emission reductions.

One commenter, the City of Fort Worth (Fort Worth), suggested simplifying the rule and questioned if automobile refinishing or aircraft prime coating were exempt in Dallas and Tarrant Counties. Automobile refinishing and aircraft prime coating are specifically excluded from the exemption for surface coating operations and therefore, must comply with all applicable emission controls regardless of the size of the facility. While the commenters provided no specific suggestions regarding improvements, the TACB staff is committed to simplifying the rule and improving the understanding of the regulated community and enforcement personnel.

Three commenters; the Sierra Club, EPA, and one individual; recommended the removal or modification of exemptions for various types and sizes of surface coating operations. These commenters suggested the exemption for small sources be dropped from the current 100-550 pound per day exemptions applicable in specified counties down to as low as the three pounds per hour or 15 pounds per day identified as reasonably available control technology by EPA. The conditional exemption in Dallas and Tarrant Counties which would not require a facility to install add-on control equipment if compliant coatings are unavailable, is no longer acceptable. Removal of the exemption for surface coating operations down to three pounds per hour or 15 pounds per day would potentially result in required controls for a large number of small operations. While these additional controls would pose no problem for most sources if appropriate compliant coatings are available, the TACB staff has provided information to EPA demonstrating that requiring add-on control equipment is not economically reasonable for facilities of this size. However, lower exemption levels for surface coating operations will be considered in subsequent rulemaking.

One individual objected to all of the exemptions provided for specific specialized coating operations. The exemptions for specialty coating operations were provided in the control technique guidelines for surface coating operations or were determined to represent a minimum level of significance. However, all areas of potential emission reductions will be considered in future control planning development, including certain specialty coatings or coating operations.

Three commenters; Fort Worth, EPA, and one individual; suggested the following changes in the definitions in §115.010 for terms which are directly applicable to surface coating operations.

Other unidentified coatings should be included in the definition of architectural coating. The proposed architectural coating rule only includes the major categories of coatings commonly used. Future rulemaking will examine other specialty coating categories to achieve additional emission reductions and provide for greater national consistency.

The exemption for flash rusting sealants should be moved to the definition of architectural coating or deleted. Flash rusting sealants are only exempted for automobile refinishing operation and are not applicable to the architectural coatings rule.

The definition for automobile refinishing should include small consumer-performed operations. Enforcement of the automobile refinishing rule at commercial operations will be challenging due to the small size of many of the affected operations and the difficulty in locating all of the commercial facilities in this industry. The control of individuals who may choose to paint their own vehicles is impractical at this time.

Paints and residential coatings should be added to the definition for consumer-solvent products. While many architectural coatings are directly purchased by the consumer, the format and subject matter of the architectural controls fit best into the surface coating rule.

The definition of pail should include containers of less than one gallon. The definition of pail is consistent with federal guidelines.

The definition of miscellaneous metal parts and products coating should apply to chemical milling maskants. Chemical milling maskants are not a permanent covering of a product for protection, decoration, or any other purpose and therefore, should not be considered a surface coating. Rather a maskant is a material temporarily applied to a portion of a product to prevent the covered surface from being subjected to acid etching or other manufacturing processes affecting the exposed surfaces. The maskant is then removed and discarded. While the control of VOC emissions from maskant application may be appropriate, such a rule should address related manufacturing processes rather than being associated with the surface coating operations.

One commenter, Fort Worth, questioned why the definition of paper coating mentioned fabric coating, even though there is a separate definition for fabric coating. The paper coating definition addresses pressure-sensitive tapes, "including paper, fabric, or plastic film," while the fabric coating definition addresses all other true fabric materials.

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

§115.425. Testing Requirements. For the counties referenced in §115.429 of this title (relating to Counties and Compliance Schedules), the following testing requirements shall apply.

(1) Compliance with §115. 421 of this title (concerning Emission Specifications) shall be determined by applying the following test methods, as appropriate:

(A) Test Method 24 (40 Code of Federal Regulations 60, Appendix A) with a one-hour bake;

(B) American Society of Testing and Materials Test Methods D 1186-06.01, D 1200-06.01, D 3794-06.01, D 2832-69, D 1644-75, and D 3960-81;

(C) United States Environmental Protection Agency (EPA) guidelines series document "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings," EPA-450/3-84-011, as in effect December, 1984;

(D) additional test procedures described in 40 Code of Federal Regulations 60.446;

(E) Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations; or

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

(2) Compliance with §115.423(2) of this title (relating to Alternate Control Requirements) shall be determined by applying the following test methods, as appropriate:

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

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

(C) 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;

(D) additional performance test procedures described in 40 Code of Federal Regulations 60.444; or

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

§115.427. Exemptions. For the counties referenced in §115. 429 of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply.

(1) Surface coating operations located at an facility in Brazoria, El Paso, Galveston, Gregg, Jefferson, Nueces, Orange, or Victoria Counties which when uncontrolled will emit a combined weight of volatile organic compounds (VOC) less than 550 pounds (249.5' kg) in any continuous 24-hour period are exempt from the provisions of §115.421 of this title (relating to Emission Specifications).

(2) Surface coating operations located at any facility in Harris County which when uncontrolled will emit a combined weight of VOC less than 100 pounds (45.4 kg) in any continuous 24-hour period are exempt from the provisions of §115.421 of this title (relating to Emission Specifications).

(3) The following coating operations are exempt from the application of §115.421(9) of this title (relating to Emission Specifications):

(A) exterior of fully assembled aircraft except as required by §115.421(9)(A) (v) of this title (relating to Emission Specifications);

(B) automobile refinishing except in Dallas and Tarrant Counties as required by §115.421(8)(B)-(C) of this title (relating to Emission Specifications);

(C) customized (decorative) top coating of automobiles and trucks, if production is less than 35 vehicles per day;

(D) exterior of fully assembled marine vessels; and

(E) exterior of fully assembled fixed offshore structures.

(4) The following coating operations are exempt from the application of §115.421(10) of this title (relating to Emission Specifications):

(A) the manufacture of exterior siding;

(B) tile board; or

(C) particle board used as a furniture component.

(5) Architectural coatings are exempt from the provisions of §115. 421(11) of this title (relating to Emission Specifications) in Dallas and Tarrant Counties if manufactured before December 31, 1988.

(6) Surface coating operations located at any facility in Dallas and Tarrant Counties which when uncontrolled will emit a combined weight of VOC of less than 100 pounds (45. 4 kg) per day, except aircraft exterior prime coating controlled by §115.421(9) (A)(v) of this title (relating to Emission Specifications) and automobile refinishing controlled by §115.421(8)(B)-(C) of this title (relating to Emission Specifications) shall be exempt from the provisions of §115.421 of this title (relating to Emission Specifications).

(7) In accordance with the schedule referenced in §115.429(2)(C) of this title (relating to Counties and Compliance Schedules), the following exemptions shall apply to surface coating operations in Dallas, El Paso, Harris, and Tarrant Counties, except for aircraft prime coating controlled by §115.421(9)(H)(v) of this title (relating to Emission Specifications) and automobile refinishing controlled by §115. 421(8)(B)-(C) of this title (relating to Emission Specifications).

(A) Surface coating operations on a property which when uncontrolled will emit a combined weight of VOC of less than three pounds per hour and 15 pounds in any consecutive 24-hour period shall be exempt from the provisions of §115. 421 of this title (relating to Emission Specifications) and §115.423 of this title (relating to Alternate Control Requirements).

(B) Surface coating operations on a property which when uncontrolled will emit a combined weight of VOC of less than 100 pounds in any consecutive 24-hour period shall be exempt from the provisions of §115.421 of this title (relating to Emission Specifications) if documentation is provided to demonstrate that necessary coating performance criteria cannot be achieved with coatings which satisfy applicable emission specifications.

(C) Surface coating operations on a property which when uncontrolled will emit a combined weight of VOC of less than 100 pounds in any consecutive 24-hour period shall be exempt from the provisions on §115.423 of this title (relating to Alternate Control Requirements).

(8) The following coatings are exempt from the application of this undesignated head (relating to Surface Coating Processes):

(A) paints sold in containers of one quart or less;

(B) paints used on roadways, pavement, swimming pools, and similar surfaces;

(C) concentrated color additives; and

(D) sealants applied over bare metal during automobile refinishing solely for the prevention of flash rusting.

§115.429. 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 Surface Coating Processes) in accordance with the following schedules:

(1) all compliance schedules which have expired prior to February 1, 1990, in accordance with §115.930 of this title (relating to Compliance Dates); and

(2) the following additional compliance schedules.

(A) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.421(8)(B)-(C) of this title (relating to Emission Specifications) as soon as practicable but no later than December 31, 1989.

(B) All affected persons in Dallas and Tarrant Counties shall be in compliance with §115.421(11) of this title (relating to Emission Specifications) as

soon as practicable but no later than December 31, 1989.

(C) All affected persons shall be in compliance with §115.426 of this title (relating to Recordkeeping Requirements) :

(i) in Dallas and Tarrant Counties as soon as practicable but no later than August 31, 1990; and

(ii) in Brazoria, El Paso, Galveston, Harris, Jefferson, and Orange Counties as soon as practicable but no later than December 31, 1990.

(D) All persons required to implement controls as a result of exceeding the exemption levels referenced in §115.427(6) of this title (relating to Exemptions) shall be in compliance with §115.421 of this title (relating to Emissions Specifications):

(i) in Dallas and Tarrant Counties as soon as practicable but no later than August 31, 1990; and

(ii) in El Paso and Harris Counties as soon as practicable but no later than December 31, 1990.

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-9000965 Allen Eli Bell
Executive Director
Texas Air Control Board

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Proposal publication date: July 28, 1990

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

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Graphic Arts (Printing) by Rotogravure and Flexographic Processes

- **31 TAC §§115.432, 115.433, 15.435-115.437, 115.439**

The Texas Air Control Board (TACB) adopts new §§115,432, 115.433, 115. 435-115.437, and 115.439. Sections 115.435, 115.437, and 115.439 are adopted with changes to the proposed text as published in the July 28, 1989, issue of the *Texas Register* (14 TexReg 3670). Sections 115.432, 115.433, and 115. 436 are adopted without changes and will not be republished.

The new §115.432, concerning control requirements, defines the type of control or technologies required to achieve necessary emission reductions. The new §115.433, concerning alternate control requirements, enables the TACB executive director to approve substantially equivalent control technologies under specific conditions. The new §115.435, 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 §115.436, 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 §115.437, concerning exemptions, specifies the conditions necessary to qualify for exemption from certain control requirements. The new §115.439, 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. Four commenters opposed the proposal, while no one testified in support.

Two commenters, EPA and one individual, indicated that compliance with §115. 432 should be achieved on a line-by-line basis. EPA has advocated a very narrow concept of the definition of a line that includes only the equipment necessary to produce a single product unit. In practice this has ranged from an individual press to a single solvent in a press using many different inks. The TACB staff defines a line in a broader way, including equipment at a facility used to produce all similar products which are covered by the same limitation. This broader interpretation provides for the emission reductions expected from the rule if all inks used satisfied the applicable emission limits, while potentially allowing a facility to use a limited daily amount of higher solvent inks for specialty purposes. EPA's more limited interpretation severely limits or eliminates this flexibility with no significant air quality benefit.

One individual suggested that exempt solvents should be treated as water in the calculations used to determine compliance with applicable control requirements. The proposed control requirements for graphic arts provide for use of either low solvent or high solids inks, as well as add-on control equipment. The limitations for both low solvent and high solids inks clearly indicate that water and exempt solvents are to be addressed in the same manner. Therefore, no revision to the proposal appears warranted.

One commenter, the City of Fort Worth, questioned which exemptions apply in Dallas and Tarrant Counties. The TACB staff intended the 100 tons per year (tpy) exemption to apply in all counties listed in §115.439 except Dallas and Tarrant Counties. The TACB staff intended the 50 tpy exemption to apply only in Dallas and Tarrant counties. Since there appears to be some question as to which counties are affected by these exemptions, clarification of the rule may be warranted.

One commenter, EPA, suggested that the 100 tpy exemption cutoff be based on a maximum potential to emit assuming operations 8,760 hours per year, or on actual emissions only if production is restricted through a federally enforceable permit. The TACB control plans and the associated emission reduction calculations are based on actual emissions of volatile organic compounds as reported in the emission inventory, in accordance with EPA guidelines for development of SIP revisions. The inconsistent use of actual and potential emissions confuses control efforts and planning activities which are based on measurable emission quantities and not hypothetical emissions. However, if actual emissions from an exempted source exceed the specified exemption limits, enforcement action may be taken to impose penalties and/or require implementation of an enforceable board order to restrict production, as necessary. These board orders may be submitted as SIP revisions, as appropriate, to ensure federal enforceability. Therefore, the use of theoretical potential emissions should never be required to qualify for or ensure compliance with an exemption.

One individual opposed the 100 tpy exemption and the 50 tpy exemption in Dallas and Tarrant Counties. The Sierra Club suggested that a 10 tpy exemption limit be used instead. The 100 tpy exemption was established when the rule was first implemented in response to the publication of applicable control techniques guidelines by EPA. At that time, only major sources were required to implement these controls. The exemption level in Dallas and Tarrant Counties was reduced to achieve additional emission reductions necessary to demonstrate attainment. Phase II of the Post-1987 SIP revision for all of the major urban nonattainment areas in Texas is expected to include the implementation of all of the most stringent controls currently enforced in the state, in addition to controls on smaller sources. Additional control options will be evaluated in the future and may be considered in subsequent rulemaking, if appropriate.

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

§115.435. Testing Requirements. For the counties referenced in §115.439 of this title (relating to Counties and Compliance Schedules), compliance with §115.432 of this title (relating to Control Requirements) in Dallas and Tarrant Counties shall be determined by applying the following test methods, as appropriate:

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