(5) [~~(6)~~] Construction or modification of a facility commenced on or after the effective date of a revision of this section or the effective date of a revision to a specific exemption in this chapter must meet the revised requirements to qualify for an exemption.

(6) [~~(7)~~] A proposed facility shall comply with all applicable provisions of the FCAA, §111 (Federal New Source Performance Standards) and §112 (Hazardous Air Pollutants), and the new source review requirements of the FCAA, Part C and Part D and regulations promulgated thereunder.

(7) [~~(8)~~] There are no permits under the same Texas Natural Resource Conservation Commission account number that contain a condition or conditions precluding the use of a standard exemption or an exemption under this chapter.

(b)-(d) (No change.)

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

Issued in Austin, Texas, on December 4, 1997.

TRD-9716445
Kevin McCalla
Director, Legal Division
Texas Natural Resource Conservation Commission
Earliest possible date of adoption: January 20, 1998
For further information, please call: (512) 239–1966

♦ ♦ ♦

Chapter 115. Control of Air Pollution from Volatile Organic Compounds

The commission proposes amendments to §115.10, concerning Definitions; new §115.420 and amendments to §§115.421-115.423, 115.426, 115.427, and 115.429, concerning Surface Coating Processes. The commission proposes these revisions to Chapter 115, concerning Control of Air Pollution from Volatile Organic Compounds (VOC) and to the State Implementation Plan (SIP) in order to add wood furniture coating rules and shipbuilding/ship repair coating rules which are based upon two Control Techniques Guideline (CTG) guidance documents issued by the United States Environmental Protection Agency (EPA).

EXPLANATION OF PROPOSED RULES Under §183 of the 1990 Amendments to the Federal Clean Air Act (FCAA), the EPA is required to issue CTGs for the purpose of assisting states in developing reasonably available control technology (RACT) controls for sources of VOC emissions. In turn, each state is required to submit a revision to its SIP which implements RACT for VOC sources in moderate or above ozone nonattainment areas. Specifically, FCAA §182(b)(2) requires states to submit RACT regulations for VOC sources that are covered by a CTG issued after November 15, 1990 (the enactment date of the 1990 FCAA), but prior to the time of attainment. FCAA §183(b)(4) requires EPA to issue a CTG concerning emissions of VOC and particulate matter from coatings and solvents used at new and existing shipbuilding and ship repair facilities. However, unlike the more general CTG requirements which mandate that EPA establish a RACT level of control, §183(b)(4) instead requires the EPA to develop the shipbuilding and ship repair CTG based on best available control measures (BACM). BACM is a broadly defined term referring to "best" technologies and other "best" available measures that can be used to control pollution. Limits in state rules must be at least as stringent as the CTG limits or otherwise must be determined to meet RACT (and in the case of shipbuilding/ship repair, BACM).

EPA issued a final wood furniture manufacturing CTG (61 Federal Register (FR) 25223, May 20, 1996), although this CTG did not establish adoption and implementation dates. Later, the EPA published a schedule for states to adopt and implement RACT rules based on the CTG (61 FR 50823, September 27, 1996). Consequently, adoption of RACT rules for this CTG source category is now required for VOC sources in ozone nonattainment areas. The wood furniture manufacturing CTG states (on page 5-3) that "RACT requirements apply to all sources located in nonattainment areas (other than extreme areas) that emit or have the potential to emit 25 tons/yr or more of VOCs." Similarly, the EPA issued a final shipbuilding and ship repair CTG (61 FR 44050, August 27, 1996), and adoption of RACT rules for this CTG source category is now required for major VOC sources in ozone nonattainment areas.

Under FCAA §182(b)(2)(C), (c), and (d), the state must also implement RACT for all major stationary VOC sources located in moderate, serious, and severe ozone nonattainment areas that are not covered by any EPA CTG document. EPA did not include offshore oil or gas drilling platforms in the shipbuilding/ship repair CTG, despite the fact that marine vessels and offshore oil or gas drilling platforms are subject to the same corrosive sea water environment. Therefore, offshore oil or gas drilling platforms which are coated at shipbuilding/ship repair facilities will be subject to the surface coating requirements for shipbuilding/ship repair operations to ensure that this federal requirement for major source RACT is satisfied. Offshore oil or gas drilling platforms which are coated elsewhere will not be subject to the surface coating requirements for shipbuilding/ship repair operations.

It should be noted that the EPA's recommendations in the wood furniture and shipbuilding/ship repair CTGs are the result of a cooperative effort involving major stakeholders. Participants throughout the CTG development included representatives from industry (including small businesses), the Navy, the coatings industry, environmental groups, states, and local agencies. Also, the CTGs were developed concurrently with the maximum achievable control technology (MACT) air toxics standards for wood furniture manufacturing operations (60 FR 62930, December 7, 1995) and for shipbuilding and ship repair surface coating (60 FR 64330, December 15, 1995). Finally, the exemption levels for the proposed wood furniture and shipbuilding/ship repair coating rules may need to be lowered in the future in order to generate additional VOC emission reductions needed to maintain progress toward attaining the national ambient air quality standard for ozone.

The proposed revisions to §115.10, concerning Definitions, delete the definitions of architectural coating, automotive basecoat/clearcoat system, automotive precoat, automotive pretreatment, automotive primer or primer surfacers, automotive sealers, automotive specialty coatings, automotive three-stage system, automotive wipe-down solutions, clear coat, clear sealers, coating, coating application system, coating line, drum, extreme performance coating, final repair coat, high-bake coatings, high-volume low-pressure spray guns, low-bake coatings, non-flat architectural coating, opaque ground coats and enamels, pail, pounds of VOC per gallon of coating (minus water and exempt solvents), pounds of

VOC per gallon of solids, semitransparent spray stains and toners, semitransparent wiping and glazing stains, shellacs, surface coating processes (which includes definitions for large appliance coating, metal furniture coating, coil coating, paper coating, fabric coating, vinyl coating, can coating, automobile coating, light-duty truck coating, miscellaneous metal parts and products coating, factory surface coating of flat wood paneling, mirror backing coating, and wood parts and products coating), topcoat, transfer efficiency, varnishes, vehicle refinishing (body shops), and wash coat. These definitions are being relocated to the proposed new §115.420, concerning Surface Coating Definitions, without changes, except that the semantics in the second sentence in the definition of coating application system have been clarified; the definition of automotive pretreatment has been revised to clarify that adhesion refers to adhesion of subsequent coatings; and the references to other paragraphs in the definition of miscellaneous metal parts and products coating have been updated due to the relocation to §115.420. In addition, the proposed revisions to §115.10 delete the definition of VOC because this term is already defined in §101.1, concerning Definitions. This deletion will also facilitate future revisions to the corresponding definition of VOC in §101.1, concerning Definitions. The proposed new §115.420 includes all definitions used exclusively within the Chapter 115 surface coating rules and organizes them according to the type of surface coating process.

The proposed new §115.420 also adds definitions of adhesive, aerospace vehicle or component, air flask specialty coating, antenna specialty coating, antifoulant specialty coating, basecoat, batch, bitumens, bituminous resin coating, cleaning operations, clear coat (as used in miscellaneous metal parts and products coating), coating solids (or solids), continuous coater, conventional air spray, epoxy, finishing application station, finishing material, finishing operation, general use coating, heat resistant specialty coating, high-gloss specialty coating, high-temperature specialty coating, inorganic zinc (high-build) specialty coating, maximum allowable thinning ratio, military exterior specialty coating, mist specialty coating, navigational aids specialty coating, nonskid specialty coating, nonvolatiles (or volume solids), normally closed container, nuclear specialty coating, organic solvent, organic zinc specialty coating, pleasure craft, pretreatment wash primer specialty coating, repair and maintenance of thermoplastic coating of commercial vessels (specialty coating), rubber camouflage specialty coating, sealant for thermal spray aluminum, sealer, ship, shipbuilding and ship repair operations, special marking specialty coating, specialty interior coating, stain, strippable booth coating, tack coat specialty coating, topcoat, touch-up and repair, undersea weapons systems specialty coating, washcoat, washoff operations, weld-through preconstruction primer (specialty coating), wood furniture, wood furniture component, and wood furniture manufacturing operations. The proposed definition of aerospace vehicle or component is simply a placeholder for the definitions included in the forthcoming aerospace CTG, such that when the EPA finalizes this CTG, no renumbering of other definitions in §115.420 will be necessary. Clear coat, as this term is used in miscellaneous metal parts and products coating, is not currently defined. The proposed definition of clearcoat is consistent with a June 1, 1995, regulation interpretation concerning this term. The remaining new definitions are used in proposed rules which are based upon CTGs for wood furniture manufacturing and shipbuilding/ship repair.

The proposed changes to §115.421, concerning Emission Specifications, establish emission limits for various coatings used in wood furniture manufacturing operations and shipbuilding/ship repair operations (including offshore oil or gas platforms); establish optional emission limit averaging equations for wood furniture manufacturing operations; establish equations for determining the maximum allowable amount of thinner which may be added to marine coatings; delete references to §115.10 for terms which are being relocated to §115.420; and change the term "applied" to "delivered to the application system" for consistency with the various emission limits in §115.421.

The proposed changes to §115.422, concerning Control Requirements, establish emission limitations and procedures for cleaning operations at wood furniture manufacturing operations and shipbuilding/ship repair operations; and restrict the use of conventional air atomization spray guns at wood furniture manufacturing operations to specific circumstances.

The proposed changes to §115.423, concerning Alternate Control Requirements, correct several references from "this section" to "this undesignated head."

The proposed changes to §115.426, concerning Recordkeeping Requirements, update a reference to a rule which has been renumbered; establish an alternate recordkeeping procedure for wood parts/products coating operations which have VOC emissions less than 25 tons per year; and clarify that temperature monitoring of direct-flame incinerators is to be done immediately downstream of the firebox, such that the firebox temperature is measured rather than the somewhat cooler stack temperature.

The proposed changes to §115.427, concerning Exemptions, update the terminology in the existing miscellaneous metal parts/products exemption from "fully assembled marine vessels and fixed offshore structures" to "ships and offshore oil or gas drilling platforms" for consistency with the proposed new requirements for surface coating of ships and offshore oil or gas drilling platforms. The proposed changes to §115.427 also exempt shipbuilding/ship repair operations in the Beaumont/Port Arthur and Houston/Galveston ozone nonattainment areas with VOC emissions from ship and offshore oil or gas drilling platform surface coating operations of less than 100 tons per year and 25 tons per year, respectively.

In addition, the proposed changes to §115.427 exempt wood furniture manufacturing facilities in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas with VOC emissions less than 25 tons per year from the new wood furniture emission specifications and control requirements. Because wood furniture manufacturing facilities in the Dallas/Fort Worth, El Paso, and Houston/Galveston ozone nonattainment areas with VOC emissions of at least 25 tons per year are already subject to the wood parts/products emission limits of §115.421(a)(13), the revisions to §115.427 also exempt these facilities from §115.421(a)(13) once they begin complying with the new requirements of §115.421(a)(14) and §115.422(3). This will ensure that these wood furniture manufacturing facilities only have to comply with one set of requirements at a time. Wood parts/products coating operations in the Beaumont/Port ozone nonattainment area with VOC emissions less than 25 tons per year continue to be exempt from the requirements of §115.421(a)(13).

Finally, the proposed changes to §115.427 add an exemption for hand-held, nonrefillable, aerosol containers ("spray paint"). This exemption is being added because surface coating operations

which include use of spray paint typically will limit its use due to cost considerations and switch to more conventional spray guns and coatings if more than a deminimis amount of spray paint is used. In addition, the EPA has published notice of its intent to regulate spray paint under a national consumer and commercial products rule (60 FR 15264, March 23, 1995) as required by FCAA §183(e).

The proposed changes to §115.429, concerning Counties and Compliance Schedules, specify the compliance schedules for the new requirements.

FISCAL NOTE Stephen Minick, Strategic Planning and Appropriations Division, has determined that for the first five-year period the sections are in effect there will be insignificant fiscal implications for state and local governments as a result of enforcing or administering the proposed amendments. Specifically, most of the wood furniture manufacturing facilities which will be subject to the proposed rules are already subject to similar, but less stringent, rules under the existing §115.421(a)(13). Only wood furniture manufacturing facilities in the Beaumont/Port Arthur ozone nonattainment area with VOC emissions of at least 25 tons per year are currently exempt from §115.421(a)(13) but subject to the proposed new emission specifications and control requirements. Consequently, only a limited number of additional wood furniture manufacturing facilities will need to be inspected for compliance with the Chapter 115 surface coating rules. Also, because the proposed shipbuilding/ship repair coating rules are limited to sources in the Beaumont/Port Arthur and Houston/Galveston ozone nonattainment areas with VOC emissions from ship and offshore oil or gas drilling platform surface coating operations of at least 100 tons per year and 25 tons per year, respectively, only a relatively small number of facilities will need to be inspected for compliance with the proposed rules.

PUBLIC BENEFIT Mr. Minick has also determined that for each year of the first five years the proposed revisions are in effect, the public benefit anticipated as a result of implementing the sections will be satisfaction of FCAA requirements, VOC emission reductions in ozone nonattainment areas which are necessary for the timely attainment of the ozone standard, and reduced public exposure to a variety of VOCs. The cost to small businesses, persons, or businesses who are required to comply with the rules as proposed is anticipated to be an average of $21,000 per year per wood furniture manufacturing facility based upon the EPA's estimate in Tables 6-4 and 6-6 of the wood furniture manufacturing CTG; and an average of $11,000 per year per shipbuilding/ship repair operation, based upon EPA's estimate in the shipbuilding/ship repair CTG (61 FR 44052, August 27, 1996).

DRAFT REGULATORY IMPACT ANALYSIS The commission has reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225 and has determined that the rulemaking is not subject to §2001.0225 because although it meets the definition of a "major environmental rule" as defined in the act, it does not meet any of the four applicability requirements listed in §2001.0225(a).

TAKINGS IMPACT ASSESSMENT The commission has prepared a Takings Impact Assessment for these rules pursuant to Texas Government Code Annotated, §2007.043. The following is a summary of that assessment. The specific purpose of the rulemaking is to add wood furniture coating rules and shipbuilding/ship repair coating rules which are based upon two CTG guidance documents issued by the EPA, as required by §182(b)(2) of the FCAA. Promulgation and enforcement of the rule amendments will not affect private real property which is the subject of the rules because this rulemaking action does not restrict or limit the owner's right to the property that would otherwise exist in the absence of the rulemaking. Further, this rulemaking is not the producing cause of a reduction in the market value of private real property. Therefore, this action does not create a burden on private real property.

COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW The commission has determined that this rulemaking action is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et. seq.), the rules of the Coastal Coordination Council (31 TAC Chapters 501-506), and the commission's rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Texas Coastal Management Program. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3) relating to actions and rules subject to the CMP, agency rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has reviewed this action for consistency, and has determined that this rulemaking is consistent with the applicable CMP goals and policies. The primary CMP policy applicable to this rulemaking action is the policy that commission rules comply with regulations at Code of Federal Regulations, Title 40, to protect and enhance air quality in the coastal area. No new sources of air contaminants will be authorized by the rule revisions, and the revisions are expected to result in a reduction in VOC emissions. Therefore, in compliance with 31 TAC §505.22(e), the commission affirms that this rulemaking is consistent with CMP goals and policies. Interested persons may submit comments on the consistency of the proposed rules with the CMP during the public comment period.

PUBLIC HEARING A public hearing on this proposal will be held in Austin on January 13, 1998 at 10:00 a.m. in Building F, Room 2210 at the Texas Natural Resource Conservation Commission Office Complex, 12100 Park 35 Circle, Austin. Individuals may present oral statements when called upon in order of registration. Open discussion within the audience will not occur during the hearing; however, an agency staff member will be available to discuss the proposal 30 minutes before the hearing and will answer questions before and after the hearing.

Persons with disabilities who have special communication or other accommodation needs who are planning to attend the hearing should contact the Office of Policy and Regulatory Development at (512) 239-4900. Requests should be made as far in advance as possible.

SUBMITTAL OF COMMENTS Written comments may be mailed to Heather Evans, Office of Policy and Regulatory Development, MC 205, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-4808. All comments should reference Rule Log Number 97131-115-AI. Comments must be received by 5:00 p.m., January 20, 1998. For further information, please contact Eddie Mack, Air Policy and Regulations Division, at (512) 239-1488.

Subchapter A. Definitions

30 TAC §115.10

STATUTORY AUTHORITY The amendment is proposed under the Texas Health and Safety Code (Vernon 1992), the Texas

Clean Air Act (TCAA), §382.017, which provides the commission with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

CROSS REFERENCE TO STATUTE The proposed amendment implements the Health and Safety Code, §382.017.

§115.10. Definitions.

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the Texas Natural Resource Conservation Commission (commission), the terms used by the commission 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 terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions for terms used in this chapter are found in §101.1 of this title (relating to Definitions) and §3.2 of this title (relating to Definitions).

[~~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.~~]

[~~Automotive basecoat/clearcoat system (used in vehicle refinishing (body shops)) - A topcoat system composed of a pigmented basecoat portion and a transparent clearcoat portion. The volatile organic compound (VOC) content of a basecoat (bc)/clearcoat (cc) system shall be calculated according to the following formula:~~]

[~~Figure 1: 30 TAC 115.10~~]

[~~Automotive precoat (used in vehicle refinishing (body shops)) - Any coating that is applied to bare metal to deactivate the metal surface for corrosion resistance to a subsequent water-based primer. This coating is applied to bare metal solely for the prevention of flash rusting.~~]

[~~Automotive pretreatment (used in vehicle refinishing (body shops)) - Any coating which contains a minimum of 0.5% acid by weight that is applied directly to bare metal surfaces to etch the metal surface for corrosion resistance and adhesion.~~]

[~~Automotive primer or primer surfacers (used in vehicle refinishing (body shops)) - Any base coat, sealer, or intermediate coat which is applied prior to colorant or aesthetic coats.~~]

[~~Automotive sealers (used in vehicle refinishing (body shops)) - Coatings that are formulated with resins which, when dried, are not readily soluble in typical solvents. These coatings act as a shield for surfaces over which they are sprayed by resisting the penetration of solvents which are in the final topcoat.~~]

[~~Automotive specialty coatings (used in vehicle refinishing (body shops)) - Coatings or additives which are necessary due to unusual job performance requirements. These coatings or additives prevent the occurrence of surface defects and impart or improve desirable coating properties. These products include, but are not limited to, uniform finish blenders, elastomeric materials for coating of flexible plastic parts, coatings for non-metallic parts, jambing clear coatings, gloss flatteners, and anti-glare/safety coatings.~~]

[~~Automotive three-stage system (used in vehicle refinishing (body shops)) - A topcoat system composed of a pigmented basecoat portion, a semitransparent midcoat portion, and a transparent clearcoat portion. The volatile organic compound (VOC) content of a three-stage system shall be calculated according to the following formula:~~]

[~~Figure 2: 30 TAC §115.10~~]

[~~Automotive wipe-down solutions (used in vehicle refinishing (body shops)) - Any solution used for cleaning and surface preparation.~~]

[~~Clear coat (used in wood parts and products coating) - A coating which lacks opacity or which is transparent and uses the undercoat as a reflectant base or undertone color.~~]

[~~Clear sealers (used in wood parts and products coating) - Liquids applied over stains, toners, and other coatings to protect these coatings from marring during handling and to limit absorption of succeeding coatings.~~]

[~~Coating - A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to paints, varnishes, sealants, adhesives, thinners, diluents, inks, maskants, and temporary protective coatings.~~]

[~~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.~~]

[~~Coating line - An operation consisting of a series of one or more coating application systems and including associated flashoff area(s), drying area(s), and oven(s) wherein a surface coating is applied, dried, or cured.~~]

[~~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).~~]

[~~Extreme performance coating- A coating intended for exposure to extreme environmental conditions, such as continuous outdoor exposure; temperatures frequently above 95 degrees Celsius (203 degrees Fahrenheit); detergents; abrasive and scouring agents; solvents; and corrosive solutions, chemicals, or atmospheres.~~]

[~~Final repair coat (used in wood parts and products coating) - Liquids applied to correct imperfections or damage to the topcoat.~~]

[~~High-bake coatings- Coatings designed to cure at temperatures above 194 degrees Fahrenheit.~~]

[~~High-volume low-pressure spray guns - Equipment used to apply coatings by means of a spray gun which operates between 0.1 and 10.0 pounds per square inch gauge air pressure.~~[

[~~Low-bake coatings- Coatings designed to cure at temperatures of 194 degrees Fahrenheit or less.~~]

[~~Non-flat architectural coating- Any coating which registers a gloss of 15 or greater on an 85 degree gloss meter or 5 or greater on a 60 degree gloss meter, and which is identified on the label as gloss, semigloss, or eggshell enamel coating.~~]

[~~Opaque ground coats and enamels (used in wood parts and products coating) - Colored, opaque liquids applied to wood or wood composition substrates which completely hide the color of the substrate in a single coat.~~]

[~~Pail (metal)- Any cylindrical metal shipping container with a nominal capacity equal to or greater than 1 gallon (3.8 liters) but less than 12 gallons (45.4 liters) and constructed of 29 gauge or heavier material.~~]

[~~Pounds of volatile organic compounds (VOC) per gallon of coating (minus water and exempt solvents) - Basis for emission limits for surface coating processes. Can be calculated by the following equation:~~]

[~~Figure 3: 30 TAC §115.10~~]

[~~Pounds of volatile organic compounds (VOC) per gallon of solids - Basis for emission limits for surface coating process. Can be calculated by the following equation:~~]

[Figure 4: 30 TAC §115.10]

[Semitransparent spray stains and toners (used in wood parts and products coating) - Colored liquids applied to wood to change or enhance the surface without concealing the surface, including but not limited to, toners and nongrain-raising stains.]

[Semitransparent wiping and glazing stains (used in wood parts and products coating) - Colored liquids applied to wood that require multiple wiping steps to enhance the grain character and to partially fill the porous surface of the wood.]

[Shellacs (used in wood parts and products coating) - Coatings formulated solely with the resinous secretions of the lac beetle (laccifer lacca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.]

[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, including, but not limited to, those 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 .]

[(L) Mirror backing coating - The application of coatings to the silvered surface of a mirror.]

[(M) Wood parts and products coating - The coating of wood parts and products, excluding factory surface coating of flat wood paneling.]

[Topcoat (used in wood parts and products coating) - A coating which provides the final protective and aesthetic properties to wood finishes.]

[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.]

[Varnishes (used in wood parts and products coating) - Clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air.]

[Vehicle refinishing (body shops) - The repair and recoating of vehicles, including, but not limited to, motorcycles, passenger cars, vans, light-duty trucks, medium-duty trucks, heavy-duty trucks, buses, and other vehicle body parts, bodies, and cabs by a commercial operation other than the original manufacturer. The repair and recoating of trailers and construction equipment are not included.]

[Volatile organic compound- Any compound of carbon or mixture of carbon compounds excluding methane, ethane, 1,1,1-trichloroethane (methyl chloroform), methylene chloride (dichloromethane), perchloroethylene (tetrachloroethylene), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (HCFC-22), trifluoromethane (HFC-23), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 1,1,1-trifluoro-2,2-dichloroethane (HCFC-123), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), parachlorobenzotrifluoride (PCBTF), cyclic, branched, or linear completely methylated siloxanes, acetone, 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca), 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb), 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee),

~~carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and perfluorocarbon compounds which fall into these classes:~~]

[~~(A) cyclic, branched, or linear, completely fluorinated alkanes;~~]

[~~(B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;~~]

[~~(C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and~~]

[~~(D) sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.~~]

[~~Wash coat (used in wood parts and products coating) - A low-solids clear liquid applied over semitransparent stains and toners to protect the color coats and to set the fibers for subsequent sanding or to separate spray stains from wiping stains to enhance color depth.~~]]

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

Issued in Austin, Texas, on December 4, 1997.

TRD-9716239
Kevin McCalla
Director, Legal Division
Texas Natural Resource Conservation
Proposed date of adoption: March 25, 1998
For further information, please call: (512) 239–1970

♦ ♦ ♦

Subchapter E. Solvent-Using Processes

Surface Coating Processes

30 TAC §§115.420–115.423, 115.426, 115.427, 115.429

The amendments and new section are proposed under the Texas Health and Safety Code (Vernon 1992), the Texas Clean Air Act (TCAA), §382.017, which provides the commission with the authority to adopt rules consistent with the policy and purposes of the TCAA; and TCAA §382.012, which requires the commission to develop plans for protection of the state's air.

The proposed amendments and new section implements the Health and Safety Code, §382.017.

§115.420. Surface Coating Definitions.

(a) General surface coating definitions. The following terms, when used in this undesignated head (relating to Surface Coating Processes), shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions for terms used in this undesignated head are found in §115.10 of this title (relating to Definitions), §101.1 of this title (relating to Definitions), and §3.2 of this title (relating to Definitions).

(1) Coating - A material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, adhesives, thinners, diluents, inks, maskants, and temporary protective coatings.

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

(3) Coating line - An operation consisting of a series of one or more coating application systems and including associated flashoff area(s), drying area(s), and oven(s) wherein a surface coating is applied, dried, or cured.

(4) Coating solids (or solids) - The part of a coating that remains after the coating is dried or cured.

(5) High-volume low-pressure (HVLP) spray guns - Equipment used to apply coatings by means of a spray gun which operates between 0.1 and 10.0 pounds per square inch gauge air pressure.

(6) Normally closed container - A container that is closed unless an operator is actively engaged in activities such as adding or removing material.

(7) Pounds of volatile organic compounds (VOC) per gallon of coating (minus water and exempt solvents) - Basis for emission limits for surface coating processes. Can be calculated by the following equation:
Figure 1: 30 TAC §115.420(a)(7)

(8) Pounds of VOC per gallon of solids - Basis for emission limits for surface coating process. Can be calculated by the following equation:
Figure 2: 30 TAC §115.420(a)(8)

(9) Surface coating processes - Operations which utilize a coating application system.

(10) 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.

(b) Specific surface coating definitions. The following terms, when used in this undesignated head (relating to Surface Coating Processes), shall have the following meanings, unless the context clearly indicates otherwise.

(1) Aerospace vehicle or component. Any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

(2) Architectural coating.

(A) 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.

(B) Non-flat architectural coating - Any coating which registers a gloss of 15 or greater on an 85 degree gloss meter or 5 or greater on a 60 degree gloss meter, and which is identified on the label as gloss, semigloss, or eggshell enamel coating.

(3) 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.

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

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

(6) 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.

(7) 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.

(8) 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.

(9) Mirror backing coating. The application of coatings to the silvered surface of a mirror.

(10) Miscellaneous metal parts and products coating.

(A) Clear coat - A coating which lacks opacity or which is transparent and which may or may not have an undercoat that is used as a reflectant base or undertone color.

(B) 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).

(C) Extreme performance coating - A coating intended for exposure to extreme environmental conditions, such as continuous outdoor exposure; temperatures frequently above 95 degrees Celsius (203 degrees Fahrenheit); detergents; abrasive and scouring agents; solvents; and corrosive solutions, chemicals, or atmospheres.

(D) High-bake coatings - Coatings designed to cure at temperatures above 194 degrees Fahrenheit.

(E) Low-bake coatings - Coatings designed to cure at temperatures of 194 degrees Fahrenheit or less.

(F) 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 those surface coating processes specified in paragraphs (2) - (9) and (11)-(15) of this subsection, including, but not limited to, those 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).

(G) Pail (metal) - Any cylindrical metal shipping container with a nominal capacity equal to or greater than 1 gallon (3.8 liters) but less than 12 gallons (45.4 liters) and constructed of 29 gauge or heavier material.

(11) 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).

(12) Marine coatings.

(A) Air flask specialty coating - Any special composition coating applied to interior surfaces of high pressure breathing air flasks to provide corrosion resistance and that is certified safe for use with breathing air supplies.

(B) Antenna specialty coating - Any coating applied to equipment through which electromagnetic signals must pass for reception or transmission.

(C) Antifoulant specialty coating - any coating that is applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms and that is registered with the United States Environmental Protection Agency as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act.

(D) Batch - The product of an individual production run of a coating manufacturer's process. (A batch may vary in composition from other batches of the same product.)

(E) Bitumens - Black or brown materials that are soluble in carbon disulfide, which consist mainly of hydrocarbons.

(F) Bituminous resin coating - Any coating that incorporates bitumens as a principal component and is formulated primarily to be applied to a substrate or surface to resist ultraviolet radiation and/or water.

(G) Epoxy - Any thermoset coating formed by reaction of an epoxy resin (i.e., a resin containing a reactive epoxide with a curing agent).

(H) General use coating - Any coating that is not a specialty coating.

(I) Heat resistant specialty coating - Any coating that during normal use must withstand a temperature of at least 204 degrees Celsius (400 degrees Fahrenheit).

(J) High-gloss specialty coating - Any coating that achieves at least 85% reflectance on a 60 degree meter when tested by the American Society for Testing and Materials (ASTM) Method D-523.

(K) High-temperature specialty coating - Any coating that during normal use must withstand a temperature of at least 426 degrees Celsius (800 degrees Fahrenheit).

(L) Inorganic zinc (high-build) specialty coating - A coating that contains 960 grams per liter (eight pounds per gallon) or more elemental zinc incorporated into an inorganic silicate binder that is applied to steel to provide galvanic corrosion resistance. (These coatings are typically applied at more than two mil dry film thickness.)

(M) Maximum allowable thinning ratio - The maximum volume of thinner that can be added per volume of coating without exceeding the applicable VOC limit of §115.421(a)(15)(A) of this title (relating to Emission Specifications).

(N) Military exterior specialty coating - Any exterior topcoat applied to military or U.S. Coast Guard vessels that are

subject to specific chemical, biological, and radiological washdown requirements.

(O) Mist specialty coating - Any low viscosity, thin film, epoxy coating applied to an inorganic zinc primer that penetrates the porous zinc primer and allows the occluded air to escape through the paint film prior to curing.

(P) Navigational aids specialty coating - Any coating applied to Coast Guard buoys or other Coast Guard waterway markers when they are recoated aboard ship at their usage site and immediately returned to the water.

(Q) Nonskid specialty coating - Any coating applied to the horizontal surfaces of a marine vessel for the specific purpose of providing slip resistance for personnel, vehicles, or aircraft.

(R) Nonvolatiles (or volume solids) - Substances that do not evaporate readily. This term refers to the film-forming material of a coating.

(S) Nuclear specialty coating - Any protective coating used to seal porous surfaces such as steel (or concrete) that otherwise would be subject to intrusion by radioactive materials. These coatings must be resistant to long-term (service life) cumulative radiation exposure (ASTM D4082-83), relatively easy to decontaminate (ASTM D4256-83), and resistant to various chemicals to which the coatings are likely to be exposed (ASTM 3912-80). (For nuclear coatings, see the general protective requirements outlined by the U.S. Atomic Energy Commission in a report entitled "U.S. Atomic Energy Commission Regulatory Guide 1.54" dated June 1973, available through the Government Printing Office at (202) 512-2249 as document number A74062-00001.)

(T) Organic zinc specialty coating - Any coating derived from zinc dust incorporated into an organic binder that contains more than 960 grams of elemental zinc per liter (eight pounds per gallon) of coating, as applied, and that is used for the expressed purpose of corrosion protection.

(U) Pleasure craft - Any marine or fresh-water vessel used by individuals for noncommercial, nonmilitary, and recreational purposes that is less than 20 meters (65.6 feet) in length. A vessel rented exclusively to, or chartered for, individuals for such purposes shall be considered a pleasure craft.

(V) Pretreatment wash primer specialty coating - Any coating that contains a minimum of 0.5% acid by weight that is applied only to bare metal surfaces to etch the metal surface for corrosion resistance and adhesion of subsequent coatings.

(W) Repair and maintenance of thermoplastic coating of commercial vessels (specialty coating) - Any vinyl, chlorinated rubber, or bituminous resin coating that is applied over the same type of existing coating to perform the partial recoating of any in-use commercial vessel. (This definition does not include coal tar epoxy coatings, which are considered "general use" coatings.)

(X) Rubber camouflage specialty coating - Any specially formulated epoxy coating used as a camouflage topcoat for exterior submarine hulls and sonar domes.

(Y) Sealant for thermal spray aluminum - Any epoxy coating applied to thermal spray aluminum surfaces at a maximum thickness of one dry mil.

(Z) Ship - Any marine or fresh-water vessel used for military or commercial operations, including self-propelled vessels, those propelled by other craft (barges), and navigational aids (buoys). This definition includes, but is not limited to, all military and Coast Guard vessels, commercial cargo and passenger (cruise) ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges. Pleasure craft and offshore oil or gas drilling platforms are not considered ships.

(AA) Shipbuilding and ship repair operations - Any building, repair, repainting, converting, or alteration of ships or offshore oil or gas drilling platforms.

(BB) Special marking specialty coating - Any coating that is used for safety or identification applications, such as ship numbers and markings on flight decks.

(CC) Specialty interior coating - Any coating used on interior surfaces aboard U.S. military vessels pursuant to a coating specification that requires the coating to meet specified fire retardant and low toxicity requirements, in addition to the other applicable military physical and performance requirements.

(DD) Tack coat specialty coating - Any thin film epoxy coating applied at a maximum thickness of two dry mils to prepare an epoxy coating that has dried beyond the time limit specified by the manufacturer for the application of the next coat.

(EE) Undersea weapons systems specialty coating - Any coating applied to any component of a weapons system intended to be launched or fired from under the sea.

(FF) Weld-through preconstruction primer (specialty coating) - A coating that provides corrosion protection for steel during inventory, is typically applied at less than one mil dry film thickness, does not require removal prior to welding, is temperature resistant (burn back from a weld is less than 1.25 centimeters (0.5 inches)), and does not normally require removal before applying film-building coatings, including inorganic zinc high-build coatings. When constructing new vessels, there may be a need to remove areas of weld-through preconstruction primer due to surface damage or contamination prior to application of film-building coatings.

(13) Vehicle coating.

(A) Automobile and light-duty truck manufacturing.

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

(ii) 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.

(B) Vehicle refinishing (body shops).

(i) Basecoat/clearcoat system - A topcoat system composed of a pigmented basecoat portion and a transparent clearcoat portion. The VOC content of a basecoat (bc)/clearcoat (cc) system shall be calculated according to the following formula:
Figure 3: 30 TAC §115.420(b)(13)(B)(i)

(ii) Precoat - Any coating that is applied to bare metal to deactivate the metal surface for corrosion resistance to a subsequent water-based primer. This coating is applied to bare metal solely for the prevention of flash rusting.

(iii) Pretreatment - Any coating which contains a minimum of 0.5% acid by weight that is applied directly to bare metal surfaces to etch the metal surface for corrosion resistance and adhesion of subsequent coatings.

(iv) Primer or primer surfacers - Any base coat, sealer, or intermediate coat which is applied prior to colorant or aesthetic coats.

(v) Sealers - Coatings that are formulated with resins which, when dried, are not readily soluble in typical solvents. These coatings act as a shield for surfaces over which they are sprayed by resisting the penetration of solvents which are in the final topcoat.

(vi) Specialty coatings - Coatings or additives which are necessary due to unusual job performance requirements. These coatings or additives prevent the occurrence of surface defects and impart or improve desirable coating properties. These products include, but are not limited to, uniform finish blenders, elastomeric materials for coating of flexible plastic parts, coatings for non-metallic parts, jambing clear coatings, gloss flatteners, and anti-glare/safety coatings.

(vii) Three-stage system - A topcoat system composed of a pigmented basecoat portion, a semitransparent midcoat portion, and a transparent clearcoat portion. The VOC content of a three-stage system shall be calculated according to the following formula:
Figure 4: 30 TAC §115.420(b)(13)(B)(vii)

(viii) Wipe-down solutions - Any solution used for cleaning and surface preparation.

(ix) Vehicle refinishing (body shops) - The repair and recoating of vehicles, including, but not limited to, motorcycles, passenger cars, vans, light-duty trucks, medium-duty trucks, heavy-duty trucks, buses, and other vehicle body parts, bodies, and cabs by a commercial operation other than the original manufacturer. The repair and recoating of trailers and construction equipment are not included.

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

(15) Wood parts and products coating.

(A) The following terms apply to wood parts and products coating facilities subject to §115.421(a)(13) of this title.

(i) Clear coat - A coating which lacks opacity or which is transparent and uses the undercoat as a reflectant base or undertone color.

(ii) Clear sealers - Liquids applied over stains, toners, and other coatings to protect these coatings from marring during handling and to limit absorption of succeeding coatings.

(iii) Final repair coat - Liquids applied to correct imperfections or damage to the topcoat.

(iv) Opaque ground coats and enamels - Colored, opaque liquids applied to wood or wood composition substrates which completely hide the color of the substrate in a single coat.

(v) Semitransparent spray stains and toners - Colored liquids applied to wood to change or enhance the surface without concealing the surface, including but not limited to, toners and nongrain-raising stains.

(vi) Semitransparent wiping and glazing stains - Colored liquids applied to wood that require multiple wiping steps to enhance the grain character and to partially fill the porous surface of the wood.

(vii) Shellacs - Coatings formulated solely with the resinous secretions of the lac beetle (laccifer lacca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

(viii) Topcoat - A coating which provides the final protective and aesthetic properties to wood finishes.

(ix) Varnishes - Clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air.

(x) Wash coat - A low-solids clear liquid applied over semitransparent stains and toners to protect the color coats and to set the fibers for subsequent sanding or to separate spray stains from wiping stains to enhance color depth.

(xi) Wood parts and products coating - The coating of wood parts and products, excluding factory surface coating of flat wood paneling.

(B) The following terms apply to wood furniture manufacturing facilities subject to §115.421(a)(14) of this title.

(i) Adhesive - Any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Adhesives are not considered to be coatings or finishing materials for wood furniture manufacturing facilities subject to §115.421(a)(14) of this title.

(ii) Basecoat - A coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials and is usually topcoated for protection.

(iii) Cleaning operations - Operations in which organic solvent is used to remove coating materials from equipment used in wood furniture manufacturing operations.

(iv) Continuous coater - A finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor system. Finishing materials that are not transferred to the part are recycled to the finishing material reservoir. Several types of application methods can be used with a continuous coater, including spraying, curtain coating, roll coating, dip coating, and flow coating.

(v) Conventional air spray - A spray coating method in which the coating is atomized by mixing it with compressed air at an air pressure greater than 10 pounds per square inch gauge (psig) at the point of atomization. Airless and air-assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece. In addition, high-volume low-pressure (HVLP) spray technology is not conventional air spray because its pressure is less than 10 psig.

(vi) Finishing application station - The part of a finishing operation where the finishing material is applied (for example, a spray booth).

(vii) Finishing material - A coating used in the wood furniture industry. For the wood furniture manufacturing industry, such materials include, but are not limited to, basecoats, stains, washcoats, sealers, and topcoats.

(viii) Finishing operation - Those activities in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

(ix) Organic solvent - A liquid containing VOCs that is used for dissolving or dispersing constituents in a coating; adjusting the viscosity of a coating; cleaning; or washoff. When used

in a coating, the organic solvent evaporates during drying and does not become a part of the dried film.

(x) Sealer - A finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Washcoats, which are used in some finishing systems to optimize aesthetics, are not sealers.

(xi) Stain - Any color coat having a solids content of no more than 8.0% by weight that is applied in single or multiple coats directly to the substrate. Includes, but is not limited to, nongrain raising stains, equalizer stains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

(xii) Strippable booth coating - A coating that is applied to a booth wall to provide a protective film to receive overspray during finishing operations; is subsequently peeled off and disposed; and reduces or eliminates the need to use organic solvents to clean booth walls.

(xiii) Topcoat - The last film-building finishing material applied in a finishing system. A material such as a wax, polish, nonoxidizing oil, or similar substance that must be periodically reapplied to a surface over its lifetime to maintain or restore the reapplied material's intended effect is not considered to be a topcoat.

(xiv) Touch-up and repair - The application of finishing materials to cover minor finishing imperfections.

(xv) Washcoat - A transparent special purpose coating having a solids content of 12% by weight or less. Washcoats are applied over initial stains to protect and control color and to stiffen the wood fibers in order to aid sanding.

(xvi) Washoff operations - Those operations in which organic solvent is used to remove coating from a substrate.

(xvii) Wood furniture - Any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured under any of the following standard industrial classification codes: 2434 (wood kitchen cabinets), 2511 (wood household furniture, except upholstered), 2512 (wood household furniture, upholstered), 2517 (wood television, radios, phonograph and sewing machine cabinets), 2519 (household furniture not elsewhere classified), 2521 (wood office furniture), 2531 (public building and related furniture), 2541 (wood office and store fixtures, partitions, shelving and lockers), 2599 (furniture and fixtures not elsewhere classified), or 5712 (custom kitchen cabinets).

(xviii) Wood furniture component - Any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops. However, foam seat cushions manufactured and fabricated at a facility that does not engage in any other wood furniture or wood furniture component manufacturing operation are excluded from this definition.

(xix) Wood furniture manufacturing operations - The finishing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

§115.421. Emission Specifications.

(a) No person in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions) may cause, suffer, allow, or permit volatile organic compound (VOC) emissions from the surface coating processes [~~as defined in §115.10 of this title~~] affected by paragraphs (1)-(15) [~~(1)-(13)~~] of this subsection to exceed the specified emission limits. These limitations are based on the daily weighted average of all coatings delivered to each coating line, except 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 VOC content of architectural coatings sold or offered for sale, and those in paragraph (14) of this subsection which, if using an averaging approach, must use one of the averaging equations within that paragraph. For the purposes of this undesignated head (relating to Surface Coating Processes), daily weighted average means the total weight of VOC emissions from all coatings, divided by the total volume of all coatings (minus water and exempt solvent) delivered to the application system [~~applied~~] each day.

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

(8) Vehicle coating.

(A) (No change.)

(B) VOC emissions from the coatings or solvents used in vehicle refinishing (body shops) [~~as defined in §115.10 of this title~~] shall not exceed the following limits, as delivered to the application system:

(i) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for primers or primer surfacers [~~, as defined in §115.10 of this title~~];

(ii) 5.5 pounds per gallon (0.66 kg/liter) of coating (minus water and exempt solvent) for precoat [~~, as defined in §115.10 of this title~~];

(iii) 6.5 pounds per gallon (0.78 kg/liter) of coating (minus water and exempt solvent) for pretreatment [~~, as defined in §115.10 of this title~~];

(iv) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for single-stage topcoats;

(v) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for basecoat/clearcoat systems [~~, as defined in §115.10 of this title~~];

(vi) 5.2 pounds per gallon (0.62 kg/liter) of coating (minus water and exempt solvent) for three-stage systems [~~, as defined in §115.10 of this title~~];

(vii) 7.0 pounds per gallon (0.84 kg/liter) of coating (minus water and exempt solvent) for specialty coatings [~~, as defined in §115.10 of this title~~];

(viii) 6.0 pounds per gallon (0.72 kg/liter) of coating (minus water and exempt solvent) for sealers [~~, as defined in §115.10 of this title~~]; and

(ix) 1.4 pounds per gallon (0.17 kg/liter) of wipe-down solutions [~~, as defined in §115.10 of this title~~].

(C) (No change.)

(9)-(12) (No change.)

(13) Surface coating of wood parts and products.

(A) In the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, VOC emissions from the coating of wood parts and products shall not exceed the following limits, as delivered to the application system, for each surface coating type:

(i) 5.9 pounds per gallon (0.71 kg/liter) of coating (minus water and exempt solvent) for clear topcoats [~~, as defined in §115.10 of this title~~];

(ii) 6.5 pounds per gallon (0.78 kg/liter) of coating (minus water and exempt solvent) for wash coats [~~, as defined in §115.10 of this title~~];

(iii) 6.0 pounds per gallon (0.72 kg/liter) of coating (minus water and exempt solvent) for final repair coats [~~, as defined in §115.10 of this title~~];

(iv) 6.6 pounds per gallon (0.79 kg/liter) of coating (minus water and exempt solvent) for semitransparent wiping and glazing stains [~~, as defined in §115.10 of this title~~];

(v) 6.9 pounds per gallon (0.83 kg/liter) of coating (minus water and exempt solvent) for semitransparent spray stains and toners [~~, as defined in §115.10 of this title~~];

(vi) 5.5 pounds per gallon (0.66 kg/liter) of coating (minus water and exempt solvent) for opaque ground coats and enamels [~~, as defined in §115.10 of this title~~];

(vii) 6.2 pounds per gallon (0.74 kg/liter) of coating (minus water and exempt solvent) for clear sealers [~~, as defined in §115.10 of this title~~];

(viii) for shellac [~~, as defined in §115.10 of this title~~]:

(I)-(II) (No change.)

(ix) 5.0 pounds per gallon (0.60 kg/liter) of coating (minus water and exempt solvent) for varnish [~~, as defined in §115.10 of this title~~]; and

(x) (No change.)

(B)-(C) (No change.)

(14) Surface coating at wood furniture manufacturing facilities. After December 31, 1999, the following requirements apply to wood furniture manufacturing facilities in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas. For facilities which are subject to this paragraph, adhesives are not considered to be coatings or finishing materials.

(A) VOC emissions from finishing operations shall be limited by:

(i) Using topcoats with a VOC content no greater than 0.8 kilograms of VOC per kilogram of solids (0.8 pounds of VOC per pound of solids), as delivered to the application system; or

(ii) Using a finishing system of sealers with a VOC content no greater than 1.9 kilograms of VOC per kilogram of solids (1.9 pounds of VOC per pound of solids), as applied, and topcoats with a VOC content no greater than 1.8 kilograms of VOC per kilogram of solids (1.8 pounds of VOC per pound of solids), as delivered to the application system; or

(iii) For wood furniture manufacturing facilities using acid-cured alkyd amino vinyl sealers or acid-cured alkyd amino conversion varnish topcoats, using sealers and topcoats which meet the following criteria.

(I) If the wood furniture manufacturing facility uses acid-cured alkyd amino vinyl sealers and acid-cured alkyd amino conversion varnish topcoats, the sealer shall contain no more than 2.3 kilograms of VOC per kilogram of solids (2.3 pounds of VOC per pound of solids), as applied, and the topcoat shall contain no more than 2.0 kilograms of VOC per kilogram of solids (2.0 pounds of VOC per pound of solids), as delivered to the application system; or

(II) If the wood furniture manufacturing facility uses a sealer other than an acid-cured alkyd amino vinyl sealer and acid-cured alkyd amino conversion varnish topcoats, the sealer shall contain no more than 1.9 kilograms of VOC per kilogram of solids (1.9 pounds of VOC per pound of solids), as applied, and the topcoat shall contain no more than 2.0 kilograms of VOC per kilogram of solids (2.0 pounds of VOC per pound of solids), as delivered to the application system; or

(III) If the wood furniture manufacturing facility uses an acid-cured alkyd amino vinyl sealer and a topcoat other than an acid-cured alkyd amino conversion varnish topcoat, the sealer shall contain no more than 2.3 kilograms of VOC per kilogram of solids (2.3 pounds of VOC per pound of solids), as applied, and the topcoat shall contain no more than 1.8 kilograms of VOC per kilogram of solids (1.8 pounds of VOC per pound of solids), as delivered to the application system; or

(iv) Using an averaging approach and demonstrating that actual emissions from the wood furniture manufacturing facility are less than or equal to the lower of the actual versus allowable emissions using one of the following inequalities:
Figure 1: 30 TAC §115.421(a)(14)(A)(iv)

(v) Using a vapor recovery system that will achieve an equivalent reduction in emissions as the requirements of clauses (i) or (ii) of this subparagraph. If this option is used, the requirements of §115.423(a)(3) of this title (relating to Alternate Control Requirements) do not apply; or

(vi) Using a combination of the methods presented in clauses (i), (ii), (iii), (iv), and (v) of this subparagraph.

(B) Strippable booth coatings used in cleaning operations shall contain no more than 0.8 kilograms of VOC per kilogram of solids (0.8 pounds of VOC per gallon of solids), as delivered to the application system.

(15) Marine coatings. After December 31, 1999, the following requirements apply to shipbuilding and ship repair operations in the Beaumont/Port Arthur and Houston/Galveston areas.

(A) The following VOC emission limits apply to the surface coating of ships and offshore oil or gas drilling platforms at shipbuilding and ship repair operations, and are based upon the VOC content of the coatings as delivered to the application system:
Figure 2: 30 TAC 115.421(a)(15)(A)

(B) For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall determine the VOC content as follows.

(i) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the shipbuilding and ship repair operation complies with the cold-weather limits in addition to the other limits specified in subparagraph (A) of this paragraph) for each batch as follows:
Figure 3: 30 TAC §115.421(a)(15)(B)(i)

(ii) If V_s is not supplied directly by the coating manufacturer, the owner or operator shall determine V_s as follows:
Figure 4: 30 TAC §115.421(a)(15)(B)(ii)

(b) No person in Gregg, Nueces, and Victoria Counties may cause, suffer, allow, or permit VOC emissions from the surface coating processes [~~as defined in §115.10 of this title~~] affected by paragraphs (1)-(9) of this subsection to exceed the specified emission limits. These limitations are based on the daily weighted average

of all coatings delivered to each coating line, except for those in paragraph (9) of this subsection which are based on paneling surface area. For the purposes of this undesignated head (relating to Surface Coating Processes), daily weighted average means the total weight of VOC emissions from all coatings, divided by the total volume of all coatings (minus water and exempt solvent) delivered to the application system [~~applied~~] each day.

(1)-(9) (No change.)

§115.422. Control Requirements.

For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following control requirements shall apply.

(1) (No change.)

(2) Each vehicle refinishing (body shop) operation shall use coating application equipment with a transfer efficiency of at least 65%, unless otherwise specified in an alternate means of control approved by the executive director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control). High-volume low-pressure (HVLP) spray guns [~~, as defined in §115.10 of this title (relating to Definitions),~~] are assumed to comply with the 65% transfer efficiency requirement.

(3) The following requirements apply to each wood furniture manufacturing facility subject to §115.421(a)(14) of this title (relating to Emission Specifications).

(A) No compounds containing more than 8.0% by weight of volatile organic compounds (VOC) shall be used for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, and/or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, no more than 1.0 gallon of organic solvent shall be used to prepare the booth prior to applying the booth coating.

(B) Only normally closed containers shall be used for storage of finishing, cleaning, and washoff materials.

(C) Conventional air spray guns shall not be used for applying finishing materials except under one or more of the following circumstances:

(i) To apply finishing materials that have a VOC content no greater than 1.0 kilograms of VOC per kilogram of solids (1.0 pounds of VOC per pound of solids), as delivered to the application system;

(ii) For touch-up and repair under the following circumstances:

(I) The finishing materials are applied after completion of the finishing operation; or

(II) The finishing materials are applied after the stain and before any other type of finishing material is applied, and the finishing materials are applied from a container that has a volume of no more than 2.0 gallons.

(iii) If spray is automated, that is, the spray gun is aimed and triggered automatically, not manually;

(iv) If emissions from the finishing application station are directed to a vapor recovery system;

(v) The conventional air gun is used to apply finishing materials and the cumulative total usage of that finishing material is no more than 5.0% of the total gallons of finishing material used during that semiannual period; or

(vi) The conventional air gun is used to apply stain on a part for which:

(I) the production speed is too high or the part shape is too complex for one operator to coat the part and the application station is not large enough to accommodate an additional operator; or

(II) the excessively large vertical spray area of the part makes it difficult to avoid sagging or runs in the stain.

(D) All organic solvent used for line cleaning or to clean spray guns shall be pumped or drained into a normally closed container.

(E) Emissions from washoff operations shall be minimized by:

(i) using normally closed tanks for washoff; and

(ii) minimizing dripping by tilting or rotating the part to drain as much organic solvent as possible.

(4) The following requirements apply to each shipbuilding and ship repair surface coating facility subject to §115.421(a)(15) of this title.

(A) All handling and transfer of VOC-containing materials to and from containers, tanks, vats, drums, and piping systems shall be conducted in a manner that minimizes spills.

(B) All containers, tanks, vats, drums, and piping systems shall be free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.

(C) All organic solvent used for line cleaning or to clean spray guns shall be pumped or drained into a normally closed container.

(5) [~~(3)~~] Any surface coating operation that becomes subject to the provisions of §115.421(a) of this title [~~(relating to Emission Specifications)~~] by exceeding the provisions of §115.427(a) of this title (relating to Exemptions) shall remain subject to the provisions in §115.421(a) of this title, even if throughput or emissions later fall below exemption limits unless and until emissions are reduced to no more than the controlled emissions level existing before implementation of the project by which throughput or emission rate was reduced to less than the applicable exemption limits in §115.427(a) of this title, and:

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification; and Exemptions from Permitting). If a standard exemption is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption; or

(B) if authorization by permit, permit amendment, standard permit, or standard exemption is not required for the project, the owner/operator has given the executive director 30 days' notice of the project in writing.

§115.423. Alternate Control Requirements.

(a) For all affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following alternate control requirements may apply.

(1) Emission calculations for surface coating operations performed to satisfy the conditions of §101.23 of this title (relating to Alternate Emission Reduction "Bubble" Policy), §115.910 of this title (relating to Availability of Alternate Means of Control), or other demonstrations of equivalency with the specified emission limits in this undesignated head (relating to Surface Coating Processes) [~~section~~] shall be based on the pounds of volatile organic compounds (VOC) per gallon of solids for all affected coatings. The following equation shall be used to convert emission limits from pounds of VOC per gallon of coating to pounds of VOC per gallon of solids:
Figure 1: 30 TAC §115.423(a)(1)

(2) Any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head, such as use of improved transfer efficiency [~~in this section~~], may be approved by the executive director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

(3)-(4) (No change.)

(b) For all affected persons in Gregg, Nueces, and Victoria Counties, the following alternate control requirements may apply:

(1) Emission calculations for surface coating operations performed to satisfy the conditions of §101.23 of this title, §115.910 of this title, or other demonstrations of equivalency with the specified emission limits in this undesignated head (relating to Surface Coating Processes) [~~section~~] shall be based on the pounds of VOC per gallon of solids for all affected coatings. The following equation shall be used to convert emission limits from pounds of VOC per gallon of coating to pounds of VOC per gallon of solids:
Figure 2: 30 TAC §115.423(b)(1)

(2) Any alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head, such as use of improved transfer efficiency [~~in this section~~], may be approved by the executive director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

(3)-(4) (No change.)

§115.426. Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following recordkeeping requirements shall apply:

(1) Any person affected by §115.421(a) of this title (relating to Emission Specifications) shall satisfy the following recordkeeping requirements.

(A) (No change.)

(B) Records shall be maintained of the quantity and type of each coating and solvent consumed during the specified averaging period. Such records shall be sufficient to calculate the applicable weighted average of VOC for all coatings.

(i) As an alternative to the recordkeeping requirements of this subparagraph, any vehicle refinishing (body shop) operation subject to [~~affected by~~] §115.421(a)(8)(B) of this title may substitute the recordkeeping requirements specified in §106.436 of this title (relating to Auto Body Refinishing Facility (Previously Standard Exemption 124)) [~~Standard Exemption 124 as referenced in §116.211 of this title (relating to Standard Exemption List)~~] provided that all coatings and solvents meet the emission limits of §115.421(a)(8)(B) of this title. If a [~~an affected~~] vehicle refinishing (body shop) operation uses any coating(s) or solvent(s) which exceeds the limits of §115.421(a)(8)(B) of this title, then that vehicle refinishing (body shop) operation shall maintain daily records of the quantity and type of each coating and solvent consumed in sufficient detail to calculate the daily weighted average of VOC for all coatings and solvents.

(ii) As an alternative to the recordkeeping requirements of this subparagraph, any wood parts and products coating operation subject to §115.421(a)(13) of this title may substitute the recordkeeping requirements specified in §106.231 of this title (relating to Manufacturing, Refinishing, and Restoring Wood Products) provided that all coatings and solvents meet the emission limits of §115.421(a)(13) of this title. If a wood parts and products coating operation uses any coating(s) or solvent(s) which exceeds the limits of §115.421(a)(13) of this title, then that wood parts and products coating operation shall maintain daily records of the quantity and type of each coating and solvent consumed in sufficient detail to calculate the daily weighted average of VOC for all coatings and solvents.

(C)-(D) (No change.)

(2) The owner or operator of any surface coating facility which utilizes a vapor recovery system approved by the executive director in accordance with §115.423(a)(3) of this title (relating to Alternate 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, including:

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

(ii)-(iv) (No change.)

(B)-(C) (No change.)

(3)-(4) (No change.)

(b) For Gregg, Nueces, and Victoria Counties, the following recordkeeping requirements shall apply:

(1) (No change.)

(2) The owner or operator of any surface coating facility which utilizes a vapor recovery system approved by the executive director in accordance with §115.423(b)(3) of this title 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; including

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

(ii)-(iv) (No change.)

(B)-(C) (No change.)

(3) (No change.)

§115.427. Exemptions.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions shall apply:

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

(A) (No change.)

(B) vehicle refinishing (body shops), except as required by §115.421(a)(8)(B) and (C) of this title; and

(C) ships and offshore oil or gas drilling platforms, except as required by §115.421(a)(15) of this title.

[~~(C) exterior of fully assembled marine vessels; and~~]

[~~(D) exterior of fully assembled fixed offshore structures.~~]

(2) (No change.)

(3) The following exemptions shall apply to surface coating operations, except for aircraft prime coating controlled by §115.421(a)(9)(A)(v) of this title and vehicle refinishing (body shops) controlled by §115.421(a)(8)(B) and (C) of this title.

(A) Surface coating operations on a property which, when uncontrolled, will emit a combined weight of VOC of less than 3 pounds per hour and 15 pounds in any consecutive 24-hour period shall be exempt from the provisions of §115.421(a) of this title [~~(relating to Emissions Specifications)~~] and §115.423(a) 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(a) [~~of this title (relating to Emissions Specifications)~~] and §115.423(a) of this title [~~(relating to Alternate Control Requirements)~~] if documentation is provided to and approved by both the executive director [~~of TACB~~] and EPA to demonstrate that necessary coating performance criteria cannot be achieved with coatings which satisfy applicable emission specifications and that control equipment is not technically or economically feasible.

(C) (No change.)

(D) Wood furniture manufacturing facilities which are subject to and are complying with the requirements of §115.421(a)(14) of this title and §115.422(3) of this title (relating to Control Requirements) are exempt from the requirements of §115.421(a)(13) of this title. These wood furniture manufacturing facilities shall continue to comply with the requirements of §115.421(a)(13) of this title until these facilities are in compliance with the requirements of §115.421(a)(14) and §115.422(3) of this title.

(E) Wood furniture manufacturing facilities which, when uncontrolled, emit a combined weight of VOC from wood furniture manufacturing operations less than 25 tons per year are exempt from the requirements of §115.421(a)(14) and §115.422(3) of this title.

(F) Wood parts and products coating facilities in Hardin, Jefferson, and Orange Counties are exempt from the requirements of §115.421(a)(13) of this title.

(G) Shipbuilding and ship repair operations in Hardin, Jefferson, and Orange Counties which, when uncontrolled, emit a combined weight of VOC from ship and offshore oil or gas drilling platform surface coating operations less than 100 tons per year are exempt from the requirements of §115.421(a)(15) and §115.422(4) of this title.

(H) Shipbuilding and ship repair operations in Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties which, when uncontrolled, emit a combined weight of VOC from ship and offshore oil or gas drilling platform surface coating operations less than 25 tons per year are exempt from the requirements of §115.421(a)(15) and §115.422(4) of this title.

(I) Coatings applied with hand-held, nonrefillable, aerosol containers ("spray paint") are exempt from the requirements of this undesignated head (relating to Surface Coating Processes).

(4)-(6) (No change.)

(b) (No change.)

§115.429. Counties and Compliance Schedules.

(a) All wood furniture manufacturing facilities affected by §115.421(a)(14) of this title (relating to Emission Specifications) in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties shall be in compliance with §115.421(a)(14) of this title and §115.422(3) of this title (relating to Control Requirements) as soon as practicable, but no later than December 31, 1999. All wood furniture manufacturing facilities subject to §115.421(a)(14) of this title in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Liberty, Montgomery, Tarrant, and Waller Counties shall continue to comply with the requirements of §115.421(a)(13) of this title until these coating operations are in compliance with the requirements of §115.421(a)(14) and §115.422(3) of this title.

(b) All shipbuilding and ship repair surface coating facilities subject to §115.421(a)(15) of this title in Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, and Waller Counties shall be in compliance with this undesignated head (relating to Surface Coating Processes) as soon as practicable, but no later than December 31, 1999.

[~~(a) All wood parts and products surface coating affected by §115.421(a)(13) of this title (relating to Emission Specifications) in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Liberty, Montgomery, Tarrant, and Waller Counties shall be in compliance with this undesignated head (relating to Surface Coating Processes) as soon as practicable, but no later than November 15, 1996.~~]

[~~(b) For persons affected by the change from gallon of solids to gallon of coating (minus water and exempt solvents) for calculating VOC content in §115.421 of this title, any coating operation which does not meet the emission limits (pounds of VOC per gallon of coating, minus water and exempt solvent) in §115.421 of this title but which meets the emission limits (pounds of VOC per gallon of solids) in §115.421 of this title (as in effect June 16, 1995) shall be in compliance with the emission limits (pounds of VOC per gallon of coating, minus water and exempt solvent) in §115.421 of this title as soon as practicable, but no later than December 31, 1996. All such coating operations shall continue to comply with the emission limits (pounds of VOC per gallon of solids) in §115.421 of this title (as in effect June 16, 1995) until these coating operations are in compliance with the emission limits (pounds of VOC per gallon of coating, minus water and exempt solvent) under §115.421 of this title.~~]

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

Issued in Austin, Texas, on December 4, 1997.

TRD-9716240
Kevin McCalla
Director, Legal Division
Texas Natural Resource Conservation
Proposed date of adoption: March 25, 1998
For further information, please call: (512) 239–1970

♦ ♦ ♦

Chapter 116. Control of Air Pollution by Permits for New Construction or Modification

The Texas Natural Resource Conservation Commission (TNRCC or commission) proposes amendments to §116.12, concerning Nonattainment Review Definitions, §116.150, concerning New Major Source or Major Modification in Ozone Nonattainment Area, and §116.151, concerning New Major Source or Major Modification in Nonattainment Area Other than Ozone.

EXPLANATION OF THE PROPOSED RULES. The Federal Clean Air Act (FCAA), §182(b)(1) and (f) specifies that required measures for volatile organic compounds (including reasonably available control technology (RACT) and nonattainment new source review (NNSR)) must also be applied for nitrogen oxides (NO_x), unless a demonstration is made that NO_x reductions would not contribute to attainment of the ozone standard. The FCAA, §182(f) allows the following federally required NO_x measures to be waived if the state demonstrates that NO_x reductions do not contribute to ozone attainment: RACT, NNSR, vehicle inspection/maintenance, and general and transportation conformity. On April 12, 1995, the United States Environmental Protection Agency (EPA) approved a temporary §182(f) exemption from these NO_x measures in Houston/Galveston (HGA) and Beaumont/Port Arthur (BPA). EPA's approval was based on the state's preliminary demonstration, using Urban Airshed Model (UAM) modeling, that NO_x reductions in HGA and BPA would not lower ozone levels, and in fact could make them worse ("NO_x disbenefit"). The temporary exemption allowed more time to conduct UAM modeling, using data from the Coastal Oxidant Assessment for Southeast Texas (COAST), an intensive 1993 field study. These UAM results were judged critical in determining whether, and to what extent, NO_x reductions are needed to attain the ozone standard. The EPA specified that the temporary exemption would expire on December 31, 1996. On May 23, 1997, the EPA approved a one-year extension of the §182(f) temporary exemption, which now expires on December 31, 1997. This additional year allows the UAM modeling, using COAST data, to accommodate improvements in the modeling process, and to allow the development of better substantiated control programs.

As a result of the original exemption and extension, the agency revised certain rules, including §116.150, to be consistent with the §182(f) waiver. In the Fall of 1997, the TNRCC staff completed a major modeling analysis of the airshed of the upper Texas Gulf Coast. This study indicated that NO_x reductions are a necessary step toward the area's attaining the federal air quality standard for ozone. Because of the modeling and the need to continue steady reductions of the pollutants that contribute to ozone smog, on November 24, 1997, the commission determined not to seek further federal §182(f) waivers from the NO_x reduction requirements of the 1990 FCAA for the HGA and BPA areas.

These amendments to Chapter 116 reinstate full NNSR, consisting of application of lowest achievable emission rate (LAER), compliance certification, offsets, and alternative site analysis. These NNSR requirements will be reflected in permits for new or modified sources which are major for NO_x in HGA and BPA, issued after the §182(f) exemption expires on December 31, 1997.

In addition, the rulemaking would implement certain aspects of EPA's New Source Review (NSR) reform package, which clarifies permitting requirements as a result of the 1990 FCAA. The proposed rulemaking includes two clarifications which were discussed in the Prevention of Significant Deterioration and NNSR proposed rule published in the *Federal Register* on July 23, 1996. The federal rulemaking provides EPA's interpretation of §182(c)(6), (7), and (8) of the 1990 FCAA amendments, which allows that creditable internal offsets may be used in certain nonattainment areas to either: avoid NNSR at existing major sources that emit, or have the potential to emit, less than 100 tons per year (tpy) of an ozone precursor; or substitute Best Available Control Technology (BACT) for LAER at existing major sources that emit, or have the potential to emit, 100 tpy or more of an ozone precursor. The proposed revisions to §116.150(a)(1) and (3) incorporate language to allow these substitutions.

Second, the proposed rule interprets that the FCAA requires a preliminary step of determining whether there is an "increase in the net emissions" from the proposed modification for which NSR applicability is in question. Where there is a "project net" increase in emissions, the next step is to combine those "project net" increases with the contemporaneous increases and decreases to determine if NNSR is required. Section 116.150(a) is proposed to be revised to require an applicant to submit contemporaneous netting calculations (de minimis threshold test) where the project has an increase in emissions of greater than five tpy and there is a net project emissions increase.

FISCAL NOTE. Stephen Minick, Strategic Planning and Appropriations, has determined that for the first five-year period the sections are in effect, there will be no significant fiscal implications for state or local government as a result of administration or enforcement of NO_x NNSR.

PUBLIC BENEFIT. Mr. Minick also has determined that for each year of the first five years the sections are in effect, the anticipated public benefit will be reductions of NO_x, ozone, and other air pollutants. This rulemaking would affect new major stationary sources of NO_x or major modifications in the HGA and BPA areas as well as in areas that are nonattainment for pollutants other than ozone. The commission cannot estimate the cost per facility for compliance with the amendment due to wide variability of project costs. This amendment does add flexibility by allowing certain NNSR projects to substitute less costly BACT for LAER.

DRAFT REGULATORY IMPACT ANALYSIS. The commission has reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code (the Code), §2001.0225 and has determined that the rulemaking is not subject to §2001.0225 because, while meeting the definition of

Figure 1: 30 TAC §115.420(a)(7)

$$\text{Pounds of VOC per gallon of coating (minus water and exempt solvents)} = \frac{W_v}{V_m - V_w - V_{es}}$$

Where:

W_v = weight of VOC, in pounds, contained in V_m gallons of coating
V_m = volume of coating, generally assumed to be one gallon
V_w = volume of water, in gallons, contained in V_m gallons of coating
V_{es} = volume of exempt solvents, in gallons, contained in V_m gallons of coating

Figure 2: 30 TAC §115.420(a)(8)

$$\text{Pounds of VOC per gallon of solids} = \frac{W_v}{V_m - V_v - V_w - V_{es}}$$

Where:

W_v = weight of VOC, in pounds, contained in V_m gallons of coating
V_m = volume of coating, generally assumed to be one gallon
V_v = volume of VOC, in gallons, contained in V_m gallons of coating
V_w = volume of water, in gallons, contained in V_m gallons of coating
V_{es} = volume of exempt solvents, in gallons, contained in V_m gallons of coating

Figure 3: 30 TAC §115.420(b)(13)(B)(i)

$$VOC\ T_{bc/cc} = \frac{VOC_{bc} + (2 \times VOC_{cc})}{3}$$

where:

$VOC\ T_{bc/cc}$ is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the basecoat/clearcoat system;

VOC_{bc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat; and

VOC_{cc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat.

Figure 4: 30 TAC §115.420(b)(13)(B)(vii)

$$VOC\ T_{3\text{-stage}} = \frac{VOC_{bc} + VOC_{mc} + (2 \times VOC_{cc})}{4}$$

where:

$VOC\ T_{3\text{-stage}}$ is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, in the three-stage system;

VOC_{bc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given basecoat;

VOC_{mc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given midcoat; and

VOC_{cc} is the VOC content, in pounds of VOC per gallon (less water and exempt solvent) as applied, of any given clearcoat.

Figure 1: 30 TAC §115.421(a)(14)(A)(iv)

$$0.9\,(0.8\,(TC_1 + TC_2 + \ldots)) \geq (ER_{TC1})\,(TC_1) + (ER_{TC2})\,(TC_2) + \ldots) \qquad \text{(Inequality 1)}$$

$$0.9\,\{[1.8\,(TC_1 + TC_2 + \ldots)] + [1.9\,(SE_1 + SE_2 + \ldots)] + \qquad \text{(Inequality 2)}$$

$$[9.0\,(WC_1 + WC_2 + \ldots)] + [1.2\,(BC_1 + BC_2 + \ldots)] +$$

$$[0.791\,(ST_1 + ST_2 + \ldots)]\} \geq [ER_{TC1}\,(TC_1) + ER_{TC2}\,(TC_2) + \ldots] +$$

$$[ER_{SE1}\,(SE_1) + ER_{SE2}\,(SE_2) + \ldots] + (ER_{WC1}\,(WC_1) + ER_{WC2}\,(WC_2) + \ldots] +$$

$$[ER_{BC1}\,(BC_1) + ER_{BC2}\,(BC_2) + \ldots] + [ER_{ST1}\,(ST_1) + ER_{ST2}\,(ST_2) + \ldots]$$

where:

TC_i = kilograms of solids of topcoat "i" used;

SE_i = kilograms of solids of sealer "i" used;

WC_i = kilograms of solids of washcoat "i" used;

BC_i = kilograms of solids of basecoat "i" used;

ST_i = liters of stain "i" used;

ER_{TCi} = VOC content of topcoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;

ER_{SEi} = VOC content of sealer "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;

ER_{WCi} = VOC content of washcoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system;

ER_{BCi} = VOC content of basecoat "i" in kilograms of VOC per kilogram of solids, as delivered to the application system; and

ER_{STi} = VOC content of stain "i" in kilograms of VOC per kilogram of solids, as delivered to the application system.

In inequalities (1) and (2) the facility must use the actual VOC content of the finishing materials used before they were subject to this paragraph if the VOC content is less than the allowed VOC content. For example, if the facility was using topcoats with a VOC content of 1.7 kilograms of VOC per kilogram of solids (1.7 pounds of VOC per gallon of solids) before being subject to this paragraph, they must use that value in Inequality (2) rather than 1.8; or

Figure 2: 30 TAC §115.421(a)(15)(A)

Coating Category	VOC limits[a, b] Grams/liter coating (minus water and exempt solvent)	Pounds/gallon coating (minus water and exempt solvent)	Grams/liter solids[c] $t \geq 4.5°C$ (40°F)	$t < 4.5°C$ (40°F)[d]
General use	340	2.83	571	728
Specialty:				
Air flask	340	2.83	571	728
Antenna	530	4.42	1,439	----
Antifoulant	400	3.33	765	971
Heat resistant	420	3.50	841	1,069
High-gloss	420	3.50	841	1,069
High-temperature	500	4.17	1,237	1,597
Inorganic zinc high-build	340	2.83	571	728
Military exterior	340	2.83	571	728
Mist	610	5.08	2,235	----
Navigational aids	550	4.58	1,597	----
Nonskid	340	2.83	571	728
Nuclear	420	3.50	841	1,069
Organic zinc	360	3.00	630	802
Pretreatment wash primer	780	6.50	11,095	----
Repair and maintenance of thermoplastics	550	4.58	1,597	----
Rubber camouflage	340	2.83	571	728
Sealant for thermal spray aluminum	610	5.08	2,235	----
Special marking	490	4.08	1,178	----
Speciality interior	340	2.83	571	728
Tack coat	610	5.08	2,235	----
Undersea weapons systems	340	2.83	571	728
Weld-through preconstruction primer	650	5.42	2,885	----

[a] The limits are expressed in two sets of equivalent units: grams per liter of coating (minus water and exempt solvent); and grams per liter of solids. Either set of limits may be used to demonstrate compliance.
[b] To convert from grams/liter to pounds/gallon, multiply by (3.785 liters/gallon)(pound/453.6 grams) or 1/120. For compliance purposes, metric units define the standards.
[c] VOC limits expressed in units of mass of VOC per volume of solids were derived from the VOC limits expressed in units of mass of VOC per volume of coating assuming the coatings contain no water or exempt compounds and that the volumes of all components within a coating are additive.
[d] These limits apply during cold-weather time periods (i.e., temperatures below 4.5 degrees Celsius (40 degrees Fahrenheit)). Cold-weather allowances are not given to coatings in categories that permit less than 40% solids nonvolatiles) content by volume. Such coatings are subject to the same limits regardless of weather conditions.

Figure 3: 30 TAC §115.421(a)(15)(B)(i)

$$R = \frac{(V_s)(\text{VOC limit}) - m_{voc}}{D_{th}} \quad \text{(Equation 1)}$$

where:

R = Maximum allowable thinning ratio for a given batch (liters of thinner per liter of coating as supplied);

V_s = Volume fraction of solids in the batch as supplied (liter of solids per liter of coating as supplied);

VOC limit = Maximum allowable as-applied VOC content of the coating (grams of VOC per liter of solids);

m_{voc} = VOC content of the batch as supplied (grams of VOC per liter of coating as supplied); and

D_{th} = Density of the thinner (grams per liter).

Figure 4: 30 TAC §115.421(a)(15)(B)(ii)

$$V_s = 1 - \frac{(m_{volatiles})}{D_{avg}} \quad \text{(Equation 2)}$$

where:

$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds (grams per liter of coating); and

D_{avg} = Average density of volatiles in the batch (grams per liter).

Figure 1: 30 TAC §115.423(a)(1)

$S = C / (1 - (C / D))$

where:

S = the applicable emission limit from §115.421(a) of this title (relating to Emission Specifications) expressed on a pounds of VOC per gallon of solids basis

C = the applicable emission limit from §115.421(a) of this title expressed on a pounds of VOC per gallon of coating basis

D = an assumed solvent density of 7.36 pounds of VOC per gallon

Figure 2: 30 TAC §115.423(b)(1)

$S = C / (1 - (C / D))$

where:

S = the applicable emission limit from §115.421(b) of this title expressed on a pounds of VOC per gallon of solids basis

C = the applicable emission limit from §115.421(b) of this title expressed on a pounds of VOC per gallon of coating basis

D = an assumed solvent density of 7.36 pounds of VOC per gallon