

# Texas Commission on Environmental Quality

## Interoffice Memorandum

**To:** Commissioners **Date:** November 18, 2011

**Thru:** Bridget Bohac, Chief Clerk  
Mark R. Vickery, P.G., Executive Director

**From:** Susana M. Hildebrand, P.E., Chief Engineer

**Docket No.:** 2011-0388-RUL

**Subject:** Commission Approval for Rulemaking Adoption  
Chapter 115, Control of Air Pollution from Volatile Organic Compounds  
Chapter 115 Volatile Organic Compounds (VOC) Reasonably Available  
Control Technology (RACT) Rule Revisions  
Rule Project No. 2010-016-115-EN

### **Background and reason(s) for the rulemaking:**

The 1990 Federal Clean Air Act (FCAA) Amendments (42 United States Code (USC), §§7401 *et seq.*) require the United States Environmental Protection Agency (EPA) to establish primary National Ambient Air Quality Standards (NAAQS) that protect public health and to designate areas exceeding the NAAQS as nonattainment areas. For each designated nonattainment area, the state is required to submit a state implementation plan (SIP) revision to the EPA that provides for attainment and maintenance of the NAAQS.

FCAA, §172(c)(1) requires that the SIP incorporate all reasonably available control measures, including RACT, for sources of relevant pollutants. The EPA defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 FR 53761, September 17, 1979). For nonattainment areas classified as moderate and above, FCAA, §182(b)(2) requires the state to submit a SIP revision that implements RACT for VOC emission sources addressed in a Control Technique Guidelines (CTG) document issued between November 15, 1990, and the area's attainment date.

CTG documents provide information to assist states and local air pollution control authorities in determining RACT for specific emission sources. CTG documents do not impose any legally binding regulations or change any applicable regulations. EPA guidance on RACT indicates that states can choose to implement the CTG recommendations, implement an alternative approach, or demonstrate that additional control for the CTG emission source category is not technologically or economically feasible in the area. FCAA, §183(e) directs the EPA to regulate VOC emissions from certain consumer and commercial product categories by issuing national regulations or by issuing CTG documents in lieu of regulations. The EPA published CTG documents in lieu of national regulations for VOC emissions in 2006 for Industrial Cleaning Solvents (EPA 453/R-06-001) and Flexible Package Printing (EPA 453/R-06-003); in 2007 for Paper, Film, and Foil Coatings (EPA 453/R-07-003), Large Appliance Coatings (EPA 453/R-07-004), and Metal Furniture

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Coatings (EPA 453/R-07-005); and in 2008 for Miscellaneous Metal and Plastic Parts Coatings (EPA-453/R-08-003), Miscellaneous Industrial Adhesives (EPA-453/R-08-005), and Automobile and Light-Duty Truck Assembly Coatings (EPA-453/R-08-006).

Under the 1997 eight-hour ozone NAAQS, the Dallas-Fort Worth eight-hour ozone nonattainment area (DFW area) is currently classified as a serious nonattainment area and the Houston-Galveston-Brazoria eight-hour ozone nonattainment area (HGB area) is currently classified as a severe nonattainment area. The purpose of this rulemaking is to implement RACT in the DFW and HGB areas as required by FCAA, §172(c)(1) and §182(b)(2), considering the CTG recommendations for Industrial Cleaning Solvents; Flexible Package Printing; Paper, Film, and Foil Coatings; Large Appliance Coatings; Metal Furniture Coatings; Miscellaneous Metal and Plastic Parts Coatings; and Miscellaneous Industrial Adhesives; and in the DFW area, Automobile and Light-Duty Truck Assembly Coatings.

**Scope of the rulemaking:**

This rulemaking implements RACT requirements for flexible package printing; industrial cleaning solvents; large appliance coatings; metal furniture coatings; paper, film and foil coatings; miscellaneous industrial adhesives; and miscellaneous metal and plastic parts coatings in the DFW and HGB areas, and for automobile and light-duty truck manufacturing coatings in the DFW area. Affected owners and operators are required to comply with the new and revised rule requirements beginning March 1, 2013.

This rulemaking revises Chapter 115, Subchapter E, Division 2, *Solvent-Using Processes*, to exempt from this division, as of March 1, 2013, the surface coating processes in the DFW and HGB areas that are affected by the rules in adopted new Chapter 115, Subchapter E, Division 5. The exemption minimizes dual applicability as the affected facilities transition to the newer requirements in Division 5. The surface coating categories currently subject to Division 2 that are adopted for regulation in Division 5 include: large appliance coatings; metal furniture coatings; paper coating lines that have the potential to emit VOC emissions of at least 25 tons per year (tpy) from all coatings; miscellaneous metal part and product coatings; and automobile and light-duty truck manufacturing coatings in the DFW area.

This rulemaking revises Chapter 115, Subchapter E, Division 3, *Flexographic and Rotogravure Printing*, to implement the EPA's CTG recommendations for flexible package printing processes that represent RACT in the DFW and HGB areas. The rulemaking expands the existing Chapter 115 rule applicability to include flexible package printing processes with VOC emissions of at least 3 tpy, when uncontrolled, and require these particular processes to comply with the cleaning work practice procedures.

This rulemaking creates new Chapter 115, Subchapter E, Division 5, *Control Requirements for Surface Coating Processes*, to implement the EPA's CTG recommendations for paper, film, and foil coatings; large appliance coatings; metal furniture coatings; and miscellaneous metal and plastic parts coatings that represent RACT for the DFW and HGB

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areas, and implement the EPA's CTG recommendations that represent RACT for automobile and light-duty truck assembly coatings in the DFW area. Beginning March 1, 2013, the surface coating operations that are required to comply with the adopted new Division 5 rules will no longer be subject to the rules in Division 2.

This rulemaking creates new Chapter 115, Subchapter E, Division 6, *Industrial Cleaning Solvents*, to implement the EPA's 2006 Industrial Cleaning Solvents CTG recommendations that represent RACT in the DFW and HGB areas. The rules require all affected industrial cleaning operations with VOC emissions of at least 3 tpy, when uncontrolled, to comply with the control requirements.

This rulemaking also creates new Chapter 115, Subchapter E, Division 7, *Miscellaneous Industrial Adhesives*, to implement the EPA's 2008 Miscellaneous Industrial Adhesives CTG recommendations that represent RACT in the DFW and HGB areas. The rules require all affected miscellaneous industrial adhesive application processes with VOC emissions of at least 3 tpy, when uncontrolled, to comply with the control requirements.

**A.) Summary of what the rulemaking will do:**

The rulemaking revises Chapter 115, Subchapter E, to implement RACT requirements in the DFW and HGB areas for the following CTG emission source categories. Affected sources are required to comply with the new and revised rules beginning March 1, 2013.

Flexible Package Printing Materials

This rulemaking revises Chapter 115, Subchapter E, Division 3 to reduce the VOC content limits of coatings for a flexible package printing line that has the potential to emit at least 25 tpy of VOC from the press dryer when uncontrolled. To further reduce VOC emissions generated from flexible package printing processes, the adopted rules require implementing work practice procedures for materials used during printing-related cleaning activities for all flexible package printing processes with actual VOC emissions of at least 3 tpy, when uncontrolled, from coatings and solvents. The rules provide several compliance options for affected flexible package printing processes including: applying low-VOC coatings to meet the specified VOC content limits; applying coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits; or using a vapor control system that meet an 80% overall control efficiency. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or control efficiency standard.

Industrial Cleaning Solvents

This rulemaking creates new Chapter 115, Subchapter E, Division 6 to establish VOC content limits for cleaning solutions used during industrial cleaning activities on a property with combined actual VOC emissions of at least 3 tpy, when uncontrolled, from all solvents. The adopted rules require implementing certain work practice procedures for the use, storage, and disposal of cleaning solvents. The rules provide several compliance options for affected industrial cleaning solvent operations including: limiting the VOC

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content of cleaning solutions; limiting the composite partial vapor pressure of cleaning solutions; and operating a vapor control system that meets an 85% overall control efficiency. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or control efficiency standard.

#### Large Appliance and Metal Furniture Coatings

This rulemaking creates new Chapter 115, Subchapter E, Division 5 to establish more stringent VOC content limits for coatings used by large appliance and metal furniture coating processes currently subject to the Chapter 115, Subchapter E, Division 2 rules. The new rules in Division 5 limit the VOC content of large appliance and metal furniture coatings in the DFW and HGB areas if total uncontrolled VOC emissions from all applicable coating processes on a property are at least 3.0 pounds per hour and 15 pounds per day. To further reduce VOC emissions from large appliance and metal furniture coating, the rules require implementing work practice procedures to reduce emissions from coating-related waste and cleaning materials. The rules provide several compliance options for affected large appliance and metal furniture coating processes including: applying low-VOC coatings to meet the specified VOC content limits; applying coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits; or using a vapor control system that meet a 90% overall control efficiency. Unless an affected owner or operator chooses to use a vapor control system, all large appliance and metal furniture coatings are required to be applied using approved coating application systems. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or overall control efficiency standard.

#### Paper, Film, and Foil Coatings

This rulemaking creates new Chapter 115, Subchapter E, Division 5 to establish more stringent VOC content limits for coatings used by a paper, film, and foil coating line that has the potential to emit at least 25 tpy of VOC, when uncontrolled, from coatings and adhesives. The new rules in Division 5 limit the VOC content of paper, film, and foil coatings in the DFW and HGB areas if combined actual VOC emissions from all applicable coating processes on a property are at least three pounds per hour and 15 pounds per day, when uncontrolled. To further reduce VOC emissions from coatings, the rules require implementing work practice procedures to reduce emissions from materials used during cleaning activities. The rules provide several compliance options for affected paper, film, and foil coating processes including: applying low-VOC coatings to meet the specified VOC content limits; applying coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits; or using a vapor control system that meet a 90% overall control efficiency. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or overall control efficiency standard.

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#### Miscellaneous Industrial Adhesives

This rulemaking creates new Chapter 115, Subchapter E, Division 7 to establish VOC content limits for general adhesive application processes, specialty adhesive application processes, and adhesive primer application processes conducted at manufacturing operations with combined actual VOC emissions of at least 3 tpy, when uncontrolled, from adhesives and solvents. To further reduce VOC emissions from adhesive application processes, the rules require implementing work practice procedures to reduce emissions from adhesive-related activities and materials used during associated cleaning operations. The rules provide several compliance options for affected adhesive application processes including: applying low-VOC adhesives to meet the specified VOC content limits; applying adhesives in combination with the operation of a vapor control system to meet the specified VOC emission limits; or using a vapor control system that meet an 85% overall control efficiency. Unless an affected owner or operator chooses to use a vapor control system, all adhesives and adhesive primers are required to be applied using approved application systems. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or control efficiency standard.

#### Miscellaneous Metal and Plastic Parts Coatings

This rulemaking creates new Chapter 115, Subchapter E, Division 5 to establish more stringent VOC content limits for miscellaneous metal parts and products coating processes currently subject to the Chapter 115, Subchapter E, Division 2 rules. In addition, this rulemaking establishes VOC content limits in Division 5 for the following new metal and plastic parts coating subcategories that are not currently subject to Division 2: miscellaneous plastic parts and products; pleasure craft; automotive/transportation and business machine plastic parts; and motor vehicle materials. The new rules in Division 5 limit the VOC content of the affected metal and plastic parts coatings in the DFW and HGB areas if total uncontrolled VOC emissions from all applicable surface coating processes on a property are at least three pounds per hour and 15 pounds per day. To further reduce VOC emissions from metal and plastic parts coatings, the rules require implementing work practice procedures to reduce emissions from coating-related waste and cleaning materials. The rules provide several compliance options for the affected metal and plastic parts coating processes including: applying low-VOC coatings to meet the specified VOC content limits; applying coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits; or using a vapor control system that meet a 90% overall control efficiency. Unless an affected owner or operator chooses to use a vapor control system, all metal and plastic coatings are required to be applied using approved coating application systems. The rules also require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the content limits or overall control efficiency standard.

#### Automobile and Light-Duty Truck Assembly Coatings

This rulemaking creates new Chapter 115, Subchapter E, Division 5 to reduce the VOC content limits of coatings used in the DFW area during automobile and light-duty truck manufacturing coating processes currently subject to the Chapter 115, Subchapter E,

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Division 2 rules. The rules apply to original equipment manufacturers and operators that coat under contract with the original equipment manufacturer with combined actual VOC emissions of at least 3 tpy, when uncontrolled, from coatings and solvents. The rules also apply to the coating of various non-assembly line parts and products by the original equipment manufacturers and operators that coat under contract with the original equipment manufacturer. To further reduce VOC emissions from automobile and light-duty truck manufacturing coating processes, the rules require work practice procedures to reduce emissions from coating-related waste and cleaning materials. The rules provide automobile and light-duty truck manufacturing coating processes the option of reducing the VOC content of coatings or operating a vapor control system that meets an overall control efficiency of 90%. The rules require testing, monitoring, and recordkeeping to demonstrate continuous compliance with the VOC limits or control efficiency standard.

**B.) Scope required by federal regulations or state statutes:**

The rules implement RACT for sources of VOC emissions per the CTGs published by the EPA for eight emission source categories in the DFW and HGB areas as required by FCAA, §172(c)(1) and §182(b)(2).

**C.) Additional staff recommendations that are not required by federal rule or state statute:**

Flexible Package Printing Materials

The EPA's CTG document recommends exempting individual flexible package printing lines from the VOC content limits that have the potential to emit less than 25 tpy of VOC, when uncontrolled, from coatings. However, to determine exemption from the VOC content limits in the existing Chapter 115, Subchapter E, Division 3 rules, the VOC emissions from all flexographic and rotogravure printing processes located on a property must be combined. Incorporating the EPA's CTG recommendation could result in backsliding because flexible package printing lines may already be required to comply with the existing VOC content limits. Therefore, the adopted rules exempt flexible package printing lines from the new VOC content limits, but require them to comply with the existing content limits, unless the printing line qualifies for a different exemption.

Large Appliance Coatings; Metal Furniture Coatings; Paper, Film, and Foil Coatings; Miscellaneous Metal and Plastic Parts Coatings; and Automobile and Light-Duty Truck Assembly Coatings

The EPA's CTG documents recommend exempting each surface coating category with VOC emissions of at least 15 pounds per day, when uncontrolled, from the coating VOC content limits and work practice requirements. However, the current Chapter 115, Subchapter E, Division 2 rules exempt each surface coating category from the VOC content limits if the combined VOC emissions from all applicable surface coating processes on a property subject to Division 2 are less than three pounds per hour and 15 pounds per day. The existing approach may be more stringent than the EPA's CTG recommendations for properties conducting multiple surface coating processes. Therefore, the adopted new

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Division 5 rules retain the existing approach to determine exemption from the new rule requirements.

#### Automobile and Light-Duty Truck Assembly Coatings

The EPA's CTG document does not provide alternative recommendations for reducing VOC emissions from coatings by operating vapor control equipment. However, the existing Chapter 115, Subchapter E, Division 2 rules provide affected automobile and light-duty truck assembly coating processes the option of using vapor control equipment to demonstrate compliance with the rule requirements. To maintain flexibility afforded to affected owners and operators subject to the existing Chapter 115 regulations, the adopted new Division 5 rules allow the use of vapor control equipment as an alternative compliance option.

#### Monitoring, Testing, and Recordkeeping Requirements

The EPA's CTG documents do not typically recommend specific monitoring, testing, and recordkeeping requirements. The monitoring, testing, and recordkeeping requirements in the adopted rules in Chapter 115, Subchapter E, Divisions 5 - 7 are similar to the requirements in Chapter 115, Subchapter E, Divisions 2 and 3 for these coating and printing processes.

#### **Statutory authority:**

The repealed, new, and amended sections are adopted under Texas Water Code (TWC), §5.102, concerning General Powers, which provides the commission with the general powers to carry out its duties under the Texas Water Code; TWC, §5.103, concerning Rules, which authorizes the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §5.105, concerning General Policy, which authorizes the commission by rule to establish and approve all general policy of the commission; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act. The repealed, new, and amended sections are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; and THSC §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air. The repealed, new, and amended sections are also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for the measuring and monitoring of air contaminant emissions; THSC §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe the sampling methods and procedures; and THSC §382.051, concerning Permitting Authority of Commission; Rules, which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382. The repealed, new, and amended

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sections are also adopted under FCAA, 42 USC, §§7401, *et seq.*, which requires states to submit SIP revisions that specify the manner in which the NAAQS will be achieved and maintained within each air quality control region of the state.

The repealed, new, and amended sections implement THSC, §§ 382.002, 382.011, 382.012, 382.016, 382.017, 382.0121, and 382.051, and FCAA, 42 USC, §§7401 *et seq.*

**Effect on the:**

**A.) Regulated community:** The adopted rules require affected sources to install control technologies or use reformulated products to meet the VOC limits, implement new work practices, and comply with additional monitoring and recordkeeping requirements. The introduction of new emission source categories into the Chapter 115 rules may increase the compliance and recordkeeping burdens for affected sources.

**B.) Public:** The public will benefit from improved air quality. It is possible that any additional compliance costs incurred by affected sources could be passed on to consumers.

**C.) Agency programs:** The adopted rule revisions may increase the workload for Office of Compliance and Enforcement staff when inspecting affected facilities to verify compliance with new or revised Chapter 115 requirements. In addition, the rulemaking may increase the workload for the Small Business and Environmental Assistance Division since the adopted rules will likely impact many small business owners.

**Stakeholder meetings:**

A CTG Stakeholder Group meeting was held on December 1, 2010. The meeting was held at the TCEQ central office in Austin and a video teleconference of the meeting was broadcast to the Fort Worth and Houston Regional Offices. The CTG Stakeholder Group meeting was open to the public and had 22 stakeholders in attendance. Stakeholders asked questions about the timeline of the rule project and about the applicability of one of the CTG documents. One informal comment was received from a coatings trade association group. The commenter suggested the proposed rules provide a complete exemption from the industrial cleaning solvents requirements for the coatings manufacturing industry because Chapter 106 already regulates all production-related solvent cleaning operations. No changes were made to the proposed rules in response to stakeholder concerns.

**Public comment:**

The commission held public hearings on July 14, 2011, at 10:00 a.m. and 6:30 p.m. at the Arlington City Council Chambers in Arlington; on July 18, 2011, at 6:30 p.m. at the Houston-Galveston Area Council offices in Houston; and on July 22, 2011, at 10:00 a.m. and 2:00 p.m. at the Texas Commission on Environmental Quality headquarters in Austin. The July 22, 2011, hearing scheduled for 10:00 a.m. was not officially opened because no party indicated a desire to provide comment. Oral comments regarding the Chapter 115

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rulemaking was presented by the American Coatings Association (ACA) at the 6:30 p.m. hearing in Houston.

The commission received written comments from ACA, Flexographic Technical Association (FTA), GREEN Environmental Consulting, Inc., Hensley Industries (Hensley), National Aeronautics and Space Administration (NASA), Texas Chemical Council (TCC), EPA, and United States Navy (US Navy), and one individual. Significant public comments are summarized as follows.

#### General Comments

EPA commented that approval of the portions of the control requirements in §115.453 for the surface coating of large appliances, metal furniture, and miscellaneous metal and plastic parts and products of the proposed rules that replace emissions limits previously adopted as RACT with less stringent emissions limits would not be possible without a demonstration from the State showing that the SIP-approved limits are no longer RACT. The EPA requested the commission explain how the existing Chapter 115 limits are no longer RACT for these sources that in some cases have been complying with these limits for 20 years or more. *In response to this comment, the VOC limits in §115.453(a)(1)(A) - (C) have been revised to implement limits that are equivalent to or more stringent than the EPA's CTG-recommended limits, with the exception of the VOC limits for high performance architectural coatings. The EPA has demonstrated the technological and economic feasibility issues with VOC limits less than the 2008 CTG-recommended limits, which staff agrees with and relied on to support retaining the proposed high performance architectural coating VOC limit.*

EPA expressed concern with the compliance schedules in §§115.439(d), 115.459(b), 115.469(b), and 115.479(b) due to the allowance of an additional 60 days for a source to comply with the rules after becoming subject. EPA suggested requiring compliance with the rules, where possible, by March 1, 2013. Additionally, EPA suggested changing the title of Division 5 to readily distinguish these rules from the rules in Division 2. *No changes have been made in response to these comments.*

ACA commented that the EPA's CTG should be consistent with other EPA rulemakings for pleasure craft, such as the National Emission Standard for Hazardous Air Pollutants for Shipbuilding and Ship Repair Operations. *No changes have been made in response to this comment.*

An individual commented that the one thing no successful businessman can handle is the constant changing of regulations that potentially require equipment and increased employment to support such equipment when one never knows if he or she will be allowed to operate the purchased equipment. The individual commented that a reasonable and prudent businessman needs to be able to plan and that has been impossible with the ever-changing regulations that EPA has come forth with. *No changes have been made in response to this comment.*

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GREEN Environmental Consulting Inc., suggested defining a designated on-site maintenance shop as an area designated at a site where coatings are applied on a routine basis to miscellaneous metal parts or products that are used elsewhere on-site as part of that site's permanent operation. *No changes have been made in response to this comment.*

NASA and the US Navy suggested that the commission remove designated on-site maintenance shops from the rule applicability in both Division 2 and Division 5 for the following reasons: this type of facility is not defined in the proposed rules; it is unclear what frequency would be considered routine; the Federal maximum achievable control technology standards for Miscellaneous Metal Parts and Products excludes facility maintenance operations; the industrial maintenance coatings are already covered by the national Architectural and Industrial Maintenance rule; and the EPA's Miscellaneous Metal and Plastic Parts Coatings CTG does not include designated on-site maintenance shops in the applicability. *In response to the comments, Division 5 §115.450(a) has been revised to exclude designated on-site maintenance shops from the miscellaneous metal parts and products coatings rule applicability. Additionally, Division 2 §115.427(a)(8) has been added to exempt the coating of miscellaneous metal parts and products at a designated on-site maintenance shop that was exempt from VOC limits in §115.421(a)(9) prior to January 1, 2012, or that begins operation on or after January 1, 2012; the coating of miscellaneous metal parts and products at a designated on-site maintenance shop that was subject to the VOC limits in §115.421(a)(9) prior to January 1, 2012, remains subject to this division.*

#### Division 5, Control Requirements for Surface Coating Processes

GREEN Environmental Consulting Inc., suggested revising the definition of extreme performance coating to include marine shipping containers and downhole drilling equipment as examples of products that may need the application of this coating type, as well as including *extreme environmental conditions, such as continuous outdoor exposure*, in the list of conditions that a miscellaneous metal parts and products may be subject to and would need the application of an extreme performance coating. *In response to this comment, the extreme performance coating definition in §115.450(c)(3) - (5) has been revised as suggested for large appliance, metal furniture, and miscellaneous metal and plastic parts coatings.*

GREEN Environmental Consulting Inc., suggested defining a designated on-site maintenance shop as an area designated at a site where coatings are applied to one or more miscellaneous metal parts or products on a routine basis. GREEN Environmental Consulting Inc., suggested adding that the miscellaneous metal parts or products being coated in a designated on-site maintenance shop would be those that are used elsewhere on-site as part of that site's permanent operation. *No changes have been made in response to this comment.*

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TCC commented that miscellaneous plastic parts and products are listed under the applicability section in §115.450(a)(4), but that there is no subsequent mention of these parts and products. TCC suggested that the commission clarify whether miscellaneous plastic parts and products are included in the Division 5 rules. *In response to this comment, a definition of miscellaneous plastic parts and products has been added in §115.450(c)(5) to help clarify the rule applicability.*

TCC requested clarification on whether it is the commission's intent to regulate the coating of newly fabricated piping or other equipment at an on-site maintenance shop, which appears to be excluded, while the re-coating of some equipment at an on-site job shop appears to be included. In addition, TCC requested clarification on whether the coating of newly fabricated piping or other equipment at an on-site lay-down yard would be a regulated activity. TCC stated that the EPA excludes the coating of new and existing support structures, piping, and equipment as part of routine maintenance activities, considered to be facility maintenance operations, from 40 Code of Federal Regulations (CFR), Part 63, Subpart M for Surface Coating of Miscellaneous Metal Parts and Products. *Clarification was provided in the rule preamble but no changes have been made to the rule in response to this comment.*

TCC requested clarification on whether extreme performance coatings applied to newly fabricated piping and equipment, which do not meet the corresponding definition in the Division 5 rules, would now be considered a general-use coating. *No changes have been made in response to this comment.*

TCC commented that an activity subject to the miscellaneous metal and plastic parts coatings rules, may use a coating that could be classified as an extreme performance coating, heat resistant coating, or as a miscellaneous metal parts and products coating, depending on the application. TCC requested that the commission clarify the intended use of control requirements in §115.453(a)(1)(C) Table 1 and Table 2. *In response to this comment, a new provision has been added stating that if a coating meets more than one coating type definition, then the coating with the least stringent VOC limit applies.*

ACA requested a small container exemption for pleasure craft touch-up and repair coatings to allow minor repairs at the end of the painting line and avoid having to completely recoat the pleasure craft. *In response to this comment, an exemption has been added in §115.451(14) for pleasure craft touch-up and repair coatings supplied in containers of 1.0 quart or less, not to exceed 50 gallons annually.*

TCC requested confirmation on whether the exemptions and definition of architectural coating in Division 5 includes painting pipes in the process unit, because these pipes are in the field and are stationary structures. TCC requested confirmation on whether the Division 5 rules apply to the coating of pipes in the process unit in addition to the coating of miscellaneous metal parts and products in lay-down yards. *No changes have been made in response to this comment.*

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TCC requested clarification on whether safety-indicating coatings exempt under §115.451(6)(C) include those temperature-sensitive coatings used to identify hazards in an industrial setting. *In response to this comment, a definition for safety-indicating coatings has been added to §115.450(c)(5)(AA).*

NASA and the US Navy requested an exemption be added to §115.451 for miscellaneous metal or plastic parts and product surface coating operations performed at on-site installations owned or operated by the Armed Forces of the United States or NASA, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States. NASA and the US Navy requested the exemption because extensive field testing is required before reformulated coatings and solvents can be approved for use and because the proposed regulations would be impractical and extremely costly for NASA and the US Navy due to the complexity of coating operations, the number of coatings and solvents used, and the number of different items and substrates coated. NASA and the US Navy also requested exemption from the miscellaneous metal parts and products coatings rules because historically accurate coatings for these items must be used. *In response to the comments, an exemption from the miscellaneous metal parts and plastic parts coatings rules has been added for the other specific surface coating categories specified in Chapter 115, Subchapter E, Divisions 2 and 5.*

GREEN Environmental Consulting Inc., suggested revising §115.453(a)(1) to remove the term low-VOC coatings from the compliance option that requires low-VOC coatings in combination with a vapor control system to meet the VOC emissions limits. GREEN Environmental Consulting Inc., added that the removal of this term makes it clear that the option of using a VOC coating that exceeds the VOC emissions limits, when used in conjunction with controls, is available. *In response to this comment, the term "low-VOC" has been removed from the option in §115.453(a)(1) to apply coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits. Additionally, the same change has been made consistently throughout Divisions 3, 5, and 7.*

ACA commented that the pleasure craft industry was not afforded the usual opportunity to consult with the EPA on the development of their CTG RACT recommendations because the draft Miscellaneous Metal and Plastic Part Coatings CTG did not mention pleasure craft surface coating operations. The ACA requested revisions to the proposed pleasure craft coating limits because the EPA's final Miscellaneous Metal and Plastic Part Coatings CTG recommendations are not technologically feasible at this time and therefore do not represent RACT for the pleasure craft industry. *In response to this comment, the VOC limits for extreme high-gloss coatings; finish primer/surfacer coatings; and other substrate antifoulant coatings have been increased. Also in response to this comment, the extreme high-gloss coatings and pretreatment wash primer coatings definitions have been modified. Lastly in response to this comment, VOC limits and a definition have been introduced for antifoulant sealer/tie coating, a new coating category.*

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GREEN Environmental Consulting Inc., suggested including hand-held paint rollers in §115.453(c)(6) to ensure that this method is acceptable under this provision. GREEN Environmental Consulting Inc., commented that often the term "roller coat" listed in §115.453(c)(4) refers to rollers used in an industrial rolling machine that mechanically applies coating. *In response to this comment, hand-held paint rollers have been incorporated as a compliant coating application system in §115.453(c)(6).*

The EPA commented that the alternate control requirements proposed in §115.454(b) should be revised to make clear that any alternative requirements to §115.453(a)(1)(A), approved by the executive director, would need to be submitted as a site specific SIP revision for approval by EPA to ensure it meets the requirements for enforceability and public hearings. *No changes have been made in response to this comment because the commission does not agree that revisions are warranted to clarify that EPA approval of alternate control requirements is necessary.*

#### Division 6, Industrial Cleaning Solvents

TCC suggested clearly exempting cleaning operations that do not involve the removal of uncured adhesives, inks, and coatings, and contaminants such as dirt, soil, oil, and grease from the industrial cleaning solvents rule. TCC commented that these cleaning operations would likely already be regulated by the vent gas control or batch processes rules in Chapter 115. *No changes have been made in response to this comment.*

TCC, NASA, and the US Navy commented that the term "janitorial cleaning" is defined in §115.460; however, there is no exemption for janitorial cleaning as recommended in the EPA's Industrial Cleaning Solvent CTG. NASA and the US Navy suggested excluding janitorial cleaning from the Industrial Cleaning Solvents rule applicability. TCC suggested including an exemption in §115.461 for janitorial cleaning. *In response to the comments, janitorial cleaning has been excluded from the rule applicability in §115.460(a).*

TCC claimed that the EPA's CTG intended to have broad applicability to industrial cleaning operations that have VOC emissions of at least 15 pounds per day, before controls. TCC added that the EPA suggests that cleaning of miscellaneous metal parts coating be excluded from applicability. TCC requested that the cleaning of miscellaneous metal parts in the petrochemical industry be exempt from the industrial cleaning solvents rule for these reasons. *No changes have been made in response to this comment.*

ACA requested the commission exempt resin manufacturing from the industrial cleaning solvents rule since the proposed VOC limits would not allow effective cleaning of resin manufacturing equipment. *In response to this comment, resin manufacturing has been exempted from the industrial cleaning solvents rules under §115.461(d)(13).*

TCC suggested revising §115.461(b) to exempt a cleaning operation from the requirements in Division 6 if all of the VOC emissions from the cleaning operation originate from a

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source for which another division within Chapter 115 has established a control requirement, emission specification, or exemption that applies to that VOC source category in that county. *In response to this comment, an exemption has been incorporated under §115.461(c) for cleaning operations that are controlled by emission specifications or control requirements established in another division in Chapter 115.*

#### Division 7, Miscellaneous Industrial Adhesives

NASA suggested exempting adhesives and adhesive primers that are subject to the National Volatile Organic Compound Emission Standards for Consumer Products, 40 CFR Part 59, Subpart C because the EPA states in the *Federal Register* notice for the Industrial Adhesive CTG (73 FR 40255) that the miscellaneous industrial adhesives category does not include materials that are subject to this rulemaking. *No changes have been made in response to this comment.*

NASA and the US Navy commented that a number of substances regulated in §115.473 are more likely to be used for institutional purposes or at construction sites rather than in manufacturing facilities and it is unclear how the rule will apply to materials used at sites that are not manufacturing facilities. The US Navy suggested exempting adhesives or adhesive primers used for general consumer or non-manufacturing applications from the requirements in Division 7. *In response to these comments, the rule applicability in §115.470(a) is being revised to clarify the requirements apply to the use of adhesives at manufacturing operations and adhesives applied in the field (e.g., construction jobs in the field) are not subject to this division.*

NASA requested an exemption be added to §115.471 for adhesives or adhesive primers used on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the Texas National Guard) and NASA. NASA requested the exemption because extensive field testing is required before adhesives can be approved for use and the proposed regulations would be impractical and extremely costly for NASA due to the complexity of adhesive operations, the number of adhesives used, and the number of different items and substrates bonded together. *No changes have been made in response to this comment.*

TCC requested the *other adhesive primers* application process category be replaced with *other adhesive primers, other than incidental industrial use*. TCC based their exemption request on the expectation that chemical plants may use limited amounts of adhesives for various repairs. TCC stated that although the adhesive use associated with these repairs is expected to be below the 3 tpy exemption threshold in §115.471, recordkeeping would still be required under §115.478(b). *No changes have been made in response to this comment.*

#### **Significant changes from proposal:**

##### Division 2, Surface Coating Processes

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- Added §115.427(8) to exempt the coating of miscellaneous metal parts and products at a designated on-site maintenance shop that was exempt from VOC limits in §115.421(a)(9) prior to January 1, 2012, or that begins operation on or after January 1, 2012. The coating of miscellaneous metal parts and products at a designated on-site maintenance shop that was subject to the VOC limits in §115.421(a)(9) prior to January 1, 2012, remains subject to this division. For purposes of this exemption, a designated on-site maintenance shop is an area at a site where used miscellaneous metal parts or products are re-coated on a routine basis.

### Division 3, Flexographic and Rotogravure Printing

- Added a definition for cleaning operation in §115.430(b).
- Revised the flexible package printing control requirements in §115.432 to clarify which VOC content limit applies for the compliance option to use coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits.

### Division 5, Control Requirements for Surface Coating Processes

- Revised the rule applicability to exclude the coating of miscellaneous metal parts and products at a designated on-site maintenance shop.
- Revised the definitions of extreme performance coatings for large appliance, metal furniture, and miscellaneous metal and plastic parts coatings.
- For pleasure craft coatings definitions in §115.450(c)(8), revised the definitions for extreme high-gloss coatings and pretreatment wash primers and added new definitions for antifoulant sealer/tie coatings, repair coatings, and touch-up coatings.
- For metal and plastic parts coatings definitions in §115.450(c)(5), revised the definition for extreme performance coatings and added new definitions for miscellaneous plastic parts and products and safety-indicating coatings.
- Revised the control requirements in §115.453 to clarify which VOC content limit applies for the compliance option to use coatings in combination with the operation of a vapor control system to meet the specified VOC emission limits.
- Revised the VOC content limits in §115.453(a)(1)(A) - (C) for large appliance, metal furniture, and miscellaneous metal parts and products to include the CTG-recommended limits that are equivalent to or more stringent than the existing Chapter 115 limits, with the exception of the VOC limit for high performance architectural coatings.
- Revised the pleasure craft coatings VOC content limits in §115.453(a)(1)(F) for extreme high-gloss coatings, finish primer-surfacer, and other substrate antifoulant coatings and added a specific VOC content limit for antifoulant sealer/tie coatings.

### Division 6, Industrial Cleaning Solvents

- Defined VOC composite partial vapor pressure in §115.460(b).

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- Added an exemption in §115.461 for solvent cleaning operations controlled in accordance with emission specifications or control requirements in another division in Chapter 115.
- Added an exemption in §115.461 from the applicability calculation for the VOC emissions from industrial solvent cleaning operations that are exempt from this division.
- Incorporated a definition of VOC composite partial vapor pressure in §115.460(b) and added an approved test method to determine vapor pressure in §115.465.

#### Division 7, Miscellaneous Industrial Adhesives

- Revised the rule applicability to clarify the requirements apply to the use of adhesives at manufacturing operations and adhesives applied in the field (e.g., construction jobs in the field) are not subject to this division.
- Revised daily weighted average definition in §115.470(b).
- Added definitions in §115.470(b) for pounds of VOC per gallon of adhesives (minus water and exempt solvents) with corresponding equation; pounds of VOC per gallon of solids with corresponding equation; repair facility; and undersea-based weapons systems components.
- Added an exemption in §115.471 for adhesive and adhesive primer application processes controlled in accordance with emission specifications or control requirements in another division in Chapter 115.
- Added an exemption in §115.471 from the applicability calculation for the VOC emissions from adhesive and adhesive primer application processes that are exempt from this division.
- Revised the control requirements in §115.471 to clarify which VOC content limit applies for the compliance option to use adhesives in combination with the operation of a vapor control system to meet the specified VOC emission limits.

#### **Potential controversial concerns and legislative interest:**

The adopted rulemaking will likely impact small businesses. The adopted rulemaking will also regulate sources that were previously not required to comply with Chapter 115 VOC limits.

In response to comments, staff determined that some of the pleasure craft coating VOC limits included in the EPA's 2008 Miscellaneous Metal and Plastic Parts Coatings CTG recommendations are not technologically feasible at this time and therefore do not constitute RACT for Texas. The EPA may not agree with this conclusion.

#### **Does this rulemaking affect any current policies or require development of new policies?**

No.

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**What are the consequences if this rulemaking does not go forward? Are there alternatives to rulemaking?**

If the rules are not adopted, the EPA may determine that the state has not met its obligation to implement RACT as required in FCAA, §172(c)(1) and §182(b)(2). EPA could then issue a finding of Failure to Submit concerning this SIP requirement. If a RACT determination was not submitted to EPA within 18 months of such a finding, Texas would be subject to sanctions by the EPA under FCAA, §179.

The commission could decide to not pursue adoption of the rules for these CTG categories. However, as discussed elsewhere in this executive summary, the state is obligated under the FCAA to submit a SIP revision implementing RACT for these CTG categories with federally enforceable measures or demonstrating why the CTG recommendations are not RACT. Due to the scope and number of sources affected by the CTG categories, any non-rule means of implementing RACT that can be made federally enforceable, such as agreed orders, are not a practical alternative to rulemaking in this circumstance. Based on discussions with EPA Region 6 staff and review of the CTG recommendations, demonstrating that the CTG recommendations do not represent RACT is not a viable option.

**Key points in the adoption rulemaking schedule:**

***Texas Register* proposal publication date:** June 24, 2011

**Anticipated *Texas Register* publication date:** December 23, 2011

**Anticipated effective date:** December 29, 2011

**Six-month *Texas Register* filing deadline:** December 24, 2011

**Anticipated adoption agenda date:** December 7, 2011

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**Attachments**

Due to the size of the CTG documents, the following documents are available upon request:

Industrial Cleaning Solvents CTG;

Flexible Package Printing CTG;

Paper, Film, and Foil Coatings CTG;

Large Appliance Coatings CTG;

Metal Furniture Coatings CTG;

Miscellaneous Metal and Plastic Parts Coatings CTG;

Miscellaneous Industrial Adhesives CTG; and

Automobile and Light-Duty Truck Assembly Coatings CTG.

These CTG documents may also be electronically accessed at:

[http://www.tceq.texas.gov/airquality/stationary-rules/ctg/control\\_techniques\\_stakeholder.html](http://www.tceq.texas.gov/airquality/stationary-rules/ctg/control_techniques_stakeholder.html)

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