ILLINOIS POLLUTION CONTROL BOARD
January 21, 2021

IN THE MATTER OF:	)	
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AMENDMENTS TO 35 ILL. ADM. CODE 219, ORGANIC MATERIAL EMISSION STANDARDS FOR THE METRO EAST AREA, AND 35 ILL. ADM. CODE 211, DEFINITIONS AND GENERAL PROVISIONS	)	R21-18 (Rulemaking – Air)

Proposed Rule. Second Notice.

OPINION AND ORDER OF THE BOARD (by C.M. Santos)

Today the Board submits amended air rules to second-notice review by the Joint Committee on Administrative Rules (JCAR). On October 5, 2020, the Illinois Environmental Protection Agency (IEPA) proposed regulations to control emission of volatile organic materials (VOM) at aerospace operations in the Metro East counties of Madison, Monroe, and St. Clair. IEPA proposed to adopt these requirements by amending Parts 211 and 219 of the Board's air pollution regulations.

IEPA reports that a source in the Metro East area intends to expand its aerospace facility so that it would become subject to general VOM emission limitations for miscellaneous metal parts and products coatings. However, IEPA cites guidance from the United States Environmental Protection Agency (USEPA) recognizing that these limitations are not appropriate for aerospace applications. IEPA proposed rules to ensure that limits specifically applicable to aerospace operations are in place for the expected expansion. The Board submitted IEPA's original proposal to first-notice publication without commenting on its substantive merits. 44 Ill. Reg. 17146, 17190 (Oct. 30, 2020).

In this opinion, the Board first summarizes the procedural history of this rulemaking and the first-notice comments. It then reviews the background of IEPA's original rulemaking proposal. The Board next provides a section-by-section summary of its second-notice proposal. After addressing technical feasibility and economic reasonableness, the Board concludes to submit the proposal to second-notice review by JCAR. The proposed rules appear in the Board's order below.

PROCEDURAL HISTORY

On October 5, 2020, IEPA filed its rulemaking proposal, which included a Statement of Reasons (SR), a Technical Support Document (TSD), proposed revisions to Part 211 (Prop. 211) and 219 (Prop. 219), and a December 1997 USEPA publication entitled *Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations* (CTG). IEPA also filed a motion for expedited review of the proposal.

On October 15, 2020, the Board accepted IEPA's proposal for hearing, granted its motion for expedited review, and submitted the proposal to first-notice publication in the *Illinois Register* without commenting on its substantive merits.

Also on October 15, 2020, the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study of the proposal. *See* 415 ILCS 5/27(b) (2018). The Board requested that DCEO respond by November 30, 2020, but the Board did not receive a response.

The Board's first-notice proposal appeared in the *Illinois Register* on October 30, 2020. 44 Ill. Reg. 17146, 17190 (Oct. 30, 2020).

On November 18, 2020, IEPA filed testimony for the first hearing by Rory Davis (Davis Test.), manager of the Regulatory Development Unit in the Air Quality Planning Section of IEPA's Bureau of Air.

On December 2, 2020, the Board docketed as a public comment an email between the staff of JCAR and the Board (PC 1) regarding JCAR's suggested changes. On December 7, 2020, the Board also docketed as a public comment a second email between the staff of JCAR and the Board (PC 2) regarding JCAR's suggested changes.

On December 3, 2020, the Board's hearing officer issued an order, attached to which were questions for IEPA (Board Questions).

On December 9, 2020, IEPA filed a motion to amend the rulemaking (Mot. Amend), which proposed two amendments to its proposed new Section 219.208(f). The Board did not receive a response to the motion.

The first hearing took place as scheduled on December 10, 2020, and the Board received the transcript (Tr.1) on December 24, 2020.

On December 30, 2020, IEPA filed post-hearing comments responding to four questions from the first hearing (IEPA Resps.).

On January 6, 2021, the Board received a public comment from The Boeing Company (Boeing) (PC 3).

The second hearing took place as scheduled on January 7, 2021, and the Board received the transcript (Tr.2) on January 8, 2021.

On January 14, 2021, IEPA submitted post-hearing comments (PC 4).

FIRST NOTICE COMMENTS

PC 1 (JCAR)

In PC 1, JCAR suggested revisions to the Board's first-notice proposal. A number of them were non-substantive in nature and proposed a correction or clarification. Other addressed formatting, such as the Board's references to temperatures. The Board's second-notice proposal includes most of the suggested non-substantive revisions, which are not discussed further in this opinion.

PC 1 also posed questions about the Board's first-notice proposal or suggested specific substantive changes. These comments are addressed below in the Board's section-by-section summary of its proposal.

Finally, for Part 219 PC 1 requested whether "the Board would reconsider its replacement of 'shall' with 'must.'" The Board declined this request and stated that it "continued to believe that the term 'must' is plainer language and more clearly conveys a mandatory obligation." PC 1 at 2.

PC 2 (JCAR)

In PC 2, JCAR again addressed the Board's replacement of "shall" with "must." The Board's response did not agree to revise its second-notice proposal. *See* PC 2.

PC 3 (Boeing)

Boeing states that its operation may be affected by the proposed rules. PC 3 at 1. It commented that the proposal is consistent with federal requirements and provides uniformity with other states. *Id*. Boeing argued that adopting the proposal is "an appropriate approach for aerospace VOM regulation that provides reliable, coherent, and widely accepted requirements for controlling emissions from aerospace coating and cleaning operations." *Id*. Boeing concluded by stating its "overall support for the rulemaking." *Id*.

PC 4 (IEPA)

During the second hearing, the Board asked IEPA whether it would object if, "during JCAR's second notice review, the Board agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA comments that there should be some time between the effective date of the rule and the compliance deadline. PC 4 at 1. IEPA recommended a compliance deadline of July 1, 2021. *Id*. IEPA commented that this date allows sources to "assess the applicability of the rule; submit any documents required by Section 219.211(j) and (k); and for any efforts needed to ensure compliance with the new provisions." *Id*. IEPA added that it "has spoken with potentially-affected sources and none indicated that this suggested date would pose any compliance issues." *Id*.

Based on the factors cited by IEPA, the Board is persuaded that July 1, 2021, is an appropriate compliance date for the proposed rules. Where IEPA originally proposed a

compliance date of January 1, 2021, the Board in its opinion and order below replaces that date with July 1, 2021, as suggested by IEPA in its comment.

BACKGROUND

Clean Air Act Requirements

Ozone NAAQS

Ozone is a gas consisting of three oxygen atoms occurring at both ground level and in the upper atmosphere. SR at 2. VOM is a primary precursor to the formation of ozone, which occurs when nitrogen oxides and VOM reaction in the atmosphere in the presence of sunlight. *Id*., citing 71 Fed. Reg. 58746 (Oct. 5, 2006). "Exposure to sufficient levels of ground-level ozone is associated with agricultural crop loss, damage to forests and ecosystems, and a variety of human health effects, including acute respiratory effects, including acute respiratory symptoms, increased susceptibility to respiratory infection, and pulmonary inflammation." SR at 2, citing 71 Fed. Reg. 58746 (Oct. 5, 2006).

Under the Clean Air Act (CAA), the USEPA identifies "air pollutants that endanger the public health and welfare" and formulates National Ambient Air Quality Standards (NAAQS) "that specify the maximum permissible concentrations in the ambient air." SR at 1-2, citing 42 USC §§ 7408-09. In Illinois, USEPA has designated two areas as nonattainment for an ozone standard, one of which is the St. Louis area designated as marginal nonattainment for the 2015 ozone standard. SR at 2, citing 40 CFR § 81.314.

RACT Requirements

The CAA provides in pertinent part that the provisions of nonattainment plans "shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the areas as may be obtained through the adoption, at a minimum, of reasonably available control technology [RACT]) and shall provide for attainment of the national primary ambient air quality standards." SR at 2-3, citing 42 USC § 7502(c)(1) (Section 172(c)(1) of the CAA); *see* CTG at 1-1. RACT is defined as "the lowest emission limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility." SR at 3; *see* CTG at 1-1.

Under Section 182 of the CAA, states in which all or part of a moderate nonattainment area is located must submit and revise implementation plans. SR at 3, citing 42 USC § 7511a(b). States must revise applicable implementation plans to include provisions requiring implementation of RACT with respect to "[e]ach category of VOC sources in the area covered by a CTG document issued by the Administrator between November 15, 1990, and the date of attainment." SR at 3, citing 42 USC § 7511a(b)(2).

In 1997, USEPA issued a CTG for coating operations and the use of cleaning solvents at aerospace manufacturing and rework facilities. SR at 3, citing CTG.

The Board asked IEPA whether it was aware of any updates or reviews of the CTG. Board Questions at 4. If not, the Board asked whether IEPA expects any updates or reviews in the future. *Id.; see* Tr.1 at 18. Mr. Davis responded that IEPA "is not aware of any reviews or updates to the CTG" and does not expect them. Tr.1 at 23-24; *see id*. at 19.

While Sections 172 and 182 of the CAA generally require states to submit VOM regulations constituting RACT for these operations in ozone nonattainment areas classified as moderate and above, Illinois has not adopted these rules because there were no sources that would have been subject to them. SR at 4; TSD at 3, 4.

Basis for IEPA Proposal

IEPA reports that a source in the Metro East area intends to expand its aerospace facility so that it would become subject to general VOM emission limitations for miscellaneous metal parts and products coatings. SR at 4, TSD at 3; *see* 35 Ill. Adm. Code 219.204. However, the aerospace CTG "recognizes that VOM RACT rules for miscellaneous metal parts and product coatings are not appropriate for aerospace applications." SR at 4; *see* CTG at 1-1; TSD at 4.

IEPA referred to reviewing other states' regulations when drafting its proposal. TSD at 9. The Board asked IEPA to comment on which states' regulations it reviewed and how those regulations compare with its proposal. Board Questions at 5. Mr. Davis responded that IEPA reviewed regulations of states including Indiana, Ohio, and New Jersey "to see how the regulations were structured and how consistent they were with the CTG requirements." Tr.1 at 29. He added that IEPA commonly performs a review of this nature. *Id*. The review indicated that these other states were "very consistent with the CTG." *Id*.

IEPA indicated that two of the potentially affected sources are subject to specified Part 219 coating rules. TSD at 9. However, it added that "coatings applied to the exterior of airplanes are exempt from the miscellaneous metal parts and products limits." *Id*. The Board asked IEPA to cite the specific source of this exemption. Mr. Davis responded that Part 211 provides this exemption in the definition of miscellaneous metal parts and products coatings (35 Ill. Adm. Code 211.3850) and the definition of miscellaneous metal parts and products coating line (35 Ill. Adm. Code 211.3870). Tr.1 at 28.

IEPA asserts that Illinois is not required to adopt its proposal because "the Metro East St. Louis ozone nonattainment area is classified as marginal for the 2015 ozone standard, not moderate or above." SR at 4-5. However, IEPA proposes "rules implementing RACT-level control on certain aerospace facilities located in the Metro East area to ensure that the most appropriate obligations are in place for the expanded aerospace facility." *Id*. at 5.

IEPA does not propose similar amendments to Part 218 addressing the Chicago area "because there are no known sources in the Chicago area to which the proposed rulemaking would apply." TSD at 4; *see* 35 Ill. Adm. Code 218.

Aerospace NESHAP

USEPA published National Emission Standards for Hazardous Air Pollutants (NESHAP) for aerospace manufacturing and rework operations in 1995. CFG at 1-2, citing 60 Fed. Reg. 45948 (Sept. 1, 1995). When drafting its proposal, IEPA consulted authorities including the aerospace NESHAP. TSD at 9. The aerospace NESHAP applies to emissions of hazardous air pollutants (HAPs) and VOM from an aerospace manufacturing and rework facility if it has a potential to emit greater than 25 tons per year (tpy) of all HAPs or greater than 10 tpy of any individual HAP. *Id*. Illinois EPA analysis indicates that there are no sources in Illinois that meet this applicability threshold. *Id*. IEPA's comments confirm that sources identified in its TSD are not currently subject to the aerospace NESHAP. IEPA Resps. at 2; *see* Tr.1 at 26.

"While the Aerospace NESHAP sets limits for maximum HAP and VOC content for topcoats, primers, maskants, clean-up solvents, and cleaning operations, the CTG establishes presumptive RACT limits for VOC's." CTG at 1-3. Also, the CTG includes requirements for Specialty Coatings, which the Aerospace NESHAP does not cover. *Id*.

Although the NESHAP addresses emission of HAPs, the control techniques required by the NESHAP are similar to those in the CTG and will reduce VOM emissions. CTG at 1-2.

Aerospace Operations

The aerospace industry includes civilian and military manufacturers and facilities. TSD at 4; *see* CTG at 2-2 (Table 2-1: Aerospace Manufacturing SIC Codes). It also includes numerous subcontractors, some dedicated to aerospace and others classified under non-aerospace classifications. TSD at 4; *see* CTG at 2-2 – 2-3. The industry manufactures and reworks aerospace parts and complete aerospace vehicles such as airplanes, helicopters, missiles, rockets, satellites, and spacecraft. *Id*.; *see* CTG at 2-1. Aerospace manufacturing ranges from small facilities that may produce a singled component to "large corporations that produce the entire aircraft." CTG at 2-6. "Aerospace rework facilities, however, are usually large facilities that must be able to rework or repair every facet of several models of large commercial or military aircraft." *Id*. Other facilities "may specialize in providing a service such as chemical milling, rather than actually producing a component or assembly." CTG at 2-1.

Aerospace Processes

Aerospace manufacturing and rework operations typically include the following: "material receiving, machining and mechanical processing, coating application, chemical milling, heat treating, cleaning, metal processing and finishing, coating removal (depainting), composite processing, and testing." CTG at 2-6; *see* TSD at 4. While original equipment manufacturers may perform all of these, facilities such as those producing a single component or providing a service may perform only some of them. CTG at 2-6. "Application of coatings and cleaning with solvents are the significant sources of VOM emissions from aerospace facilities" and are the processes addressed by the CTG. SR at 6; TSD at 4; *see* CTG at 2-6.

Coating Application

"A coating is a material that is applied to the surface of a part to form a decorative, protective, or functional solid film." CTG at 2-6; TSD at 5. Applying a coating "is a process of painting a surface area." TSD at 5. Common application methods include "brush coating, dip coating, flow coating, roll coating, electrodeposition, electrostatic spray, high-volume low pressure (HVLP) spray, and low-volume low pressure spray." *Id*.; *see id*. at 12. The most common coatings are nonspecialized primers and topcoats regulated by the Aerospace NESHAP. CTG at 2-6, 3-1; TSD at 5, 7.

The CTG also covers a number of specialty coatings that "provide additional performance characteristics, such as temperature, fluid, fire resistance, flexibility, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, enhanced corrosion protection, or compatibility with a space environment." CTG at 2-6 - 2-7. "Specialty coatings typically have relatively low usage, so reformulation to lower VOC contents does not produce significant air quality benefits nor is it economically feasible for paint suppliers. . . . Therefore, lower VOC formulations are not available for most of the low volume specialty coating categories." TSD at 7, citing CTG at 3-1.

The Board asked IEPA whether it is aware that the use of specialty coating by potentially affected sources is consistent with this assessment in the CTG. Board Questions at 4. Mr. Davis responded that IEPA discussed its original proposal with potentially affected sources. He added that those discussions support that conclusion in the TSD and CTG that the use of specialty coatings accounts "for a small minority of the emissions of active sources." Tr.1 at 25.

"Coatings are a mixture of solids and liquids." TSD at 5. Liquids, some of which contain VOM, "dissolve the solids and control the viscosity of the coating for easy delivery to the target surface area." *Id*. "At the end of coating process, the liquids evaporate and leave the solids in the target surface area." *Id*. Without add-on control equipment, the entire VOM content of the coating is emitted. *Id*. "The most common VOM solvents used in coatings are toluene, xylene, methyl ethyl ketone, and methyl isobutyl ketone." CTG at 2-7.

Sealing. "Sealing is a process of applying sealant material, primarily to seal out moisture and contaminants to prevent corrosion." TSD at 5; *see* CTG at 2-7. "Sealants are specialty coatings but have low VOM content relative to most of the other specialty coatings listed in the CTG." TSD at 5.

Adhesive Bonding. Adhesive bonding is the process of joining two or more components. TSD at 6; CTG at 2-7. "The surfaces are thinly coated with an adhesive before the parts are joined together and cured" to form a permanent bond between the components. TSD at 6. Adhesives are specialty coatings, and the CTG lists several types, including adhesion promoter and bonding primers. *Id*.

Cleaning

Aerospace operations clean components frequently during manufacturing to remove contaminants and to prepare components for the next operation. CTG at 2-8. Cleaning

operations occur during or before the coating process, and when switching between coating processes. TSD at 6. "Most cleaning agents used are solvents containing VOM." Id.

Hand-Wipe and Flush Cleaning. "Cleaning is typically performed by a hand wiping process using a wide variety of cleaning solvents." CTG at 2-8. "[C]oncealed or inaccessible areas may be flush-cleaned by passing the cleaning agent over, into, or through the part." *Id*.

Spray Gun and Coating Line Cleaning. Aerospace operations clean coating lines and spray guns used to apply coatings when switching coatings or when they are not immediately reusing the equipment. TSD at 6; CTG at 2-8. "Paint hoses and coating lines are cleaned by passing the cleaning solvent through the lines until all coating residue is removed." CTG at 2-9.

Spray guns can be cleaned manually or with enclosed spray gun cleaners. CTG at 2-8. Manual cleaning involves disassembling the equipment, placing it in a vat with the appropriate cleaning solvent, and then reassembling it. *Id*. Enclosed spray gun cleaning pumps a cleaning agent through the spray gun and any other coating pipes in a closed chamber. TSD at 6.

Aerospace CTG

For sources in this category, the 1997 CTG recommends applicability thresholds and RACT control measures for coating operations and the use of cleaning solvents. SR at 3-4, citing TSD. The CTG states that "[t]he quality of the coatings is critical to the airworthiness and safety of the final product. Aerospace vehicle manufacturing is strictly controlled by the Federal Aviation Administration, the Department of Defense, and specific customer requirements." CTG at 2-7; SR at 4; TSD at 3-4. The CTG recognizes that general VOM RACT rules for coatings are not appropriate for aerospace applications: "[t]he CTG is intended to supersede any potential applicability of the Miscellaneous Metal Part and Products CTG (RACT) requirements for manufacturing and rework operations of aerospace vehicles and components." CTG at 1-1; SR at 4; TSD at 4; *see* Davis Test. at 1-2. Consequently, the CTG "limits are very specific to the types of coatings used in the aerospace industry." SR at 5.

Mr. Davis testified that IEPA's proposal is consistent with the CTG. Davis Test. at 1. He stated that "affected sources have been complying with limitations consistent with the guidelines" since they were adopted. *Id*. at 2.

Applicability of Proposed Regulations

IEPA states that its proposed rules "are intended to reflect the CTG-recommended RACT-level control of VOM for aerospace facilities." TSD at 9. The rules would apply to aerospace coating and cleaning activities at Metro East facilities "that have the potential to emit 25 tons of VOM or more per year." *Id*.; *see id*. at 12. IEPA's proposal would not apply to "research and development, laboratory testing, or quality control. The proposed regulations also exempt touchup coatings up to a certain level, aerosol coatings, United States Department of Defense classified coatings, coating of space vehicles, and coating of antique aerospace vehicles or components." *Id*. at 12. The proposal also exempts "the use of separate formulations of

specialty coatings in volumes of less than 50 gallons per year of a single formulation with maximum exemption of 200 gallons per year for all total formulations." *Id*.

SIP Submission

If the Board adopts rules in this proceeding, IEPA intends to submit them to USEPA for approval as a revision of Illinois' ozone State Implementation Plan (SIP). SR at 5. States must provide public notice and an opportunity for hearing before submitting proposed SIP revisions to USEPA. *Id*, citing 40 C.F.R. § 51.102 and Appendix V to Part 51. "The Board's procedural rules provide for notice that meets this requirement." SR at 5, citing 35 Ill. Adm. Code 102.416. IEPA provided language it considered "adequate" to meet the notice requirements, which the Board included in its notice of hearings without substantial revision. SR at 5.

IEPA reports that USEPA Region V reviewed IEPA's proposal "and indicated that it is likely approvable as a revision to Illinois' ozone SIP." SR at 6.

IEPA Communication with Potential Participants

IEPA reports that it provided a draft of its proposal to and requested comments from various entities including "potentially impacted sources, environmental groups, groups or individuals who have expressed an interest in air-related issues in the Metro-East area, and Region V of USEPA." SR at 7-8; *see* TSD at 3. IEPA received comments "and, in response, made various minor changes to its proposed rule." SR at 8. IEPA did not receive a comment opposing the proposal. *Id*.; *see* TSD at 9.

SECTION-BY-SECTION SUMMARY OF SECOND-NOTICE PROPOSAL

On October 15, 2020, the Board submitted IEPA's proposal to first-notice publication in the *Illinois Register* without substantive comment on it. *See* 44 Ill. Reg. 17146, 17190 (Oct. 30, 2020). Although many of the proposal's provisions did not trigger comment during the rulemaking process, others generated questions or suggested revisions. Below, the Board reviews the record supporting its second-notice proposal section-by-section.

Part 211

Section 211.125: Ablative Coating

IEPA proposed that "'[a]blative coating' means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame." Prop. 211 at 18; CTG at A-4.

Section 211.234: Adhesive Bonding Primer

IEPA proposed that "'[a]dhesive bonding primer' means a primer applied in a thin film to aerospace components for the purpose of corrosion inhibition and increased adhesive bond

strength by attachment. There are two categories of adhesive bonding primers: primers with a design cure at 250°F or below and primers with a design cure above 250°F." Prop. 211 at 18; CTG at A-4.

Section 211.245: Adhesion Promoter for Aerospace Applications

IEPA proposed that "'[a]dhesion promoter for aerospace applications' means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material." Prop. 211 at 18.

Section 211.271: Aerosol Coating

IEPA proposed that "'[a]erosol coating' means a hand-held, pressurized, nonrefillable container that expels an adhesive or a coating in a finely divided spray when a valve on the container is depressed." Prop. 211 at 18-19; CTG at A-4.

Section 211.272: Aerospace Coating

IEPA proposed that "'[a]erospace coating' means a material that is applied to the surface of an aerospace vehicle or component to form a decorative, protective, or functional solid film, or the solid film itself." Prop. 211 at 19.

Section 211.273: Aerospace Coating Operation

IEPA proposed that

> '[a]erospace coating operation' means using a spray booth, tank, or other enclosure or any area, such as a hangar, for applying a single type of aerospace coating at an aerospace facility. Using the same spray booth for applying another type of coating (e.g., a topcoat after having previously applied a primer) constitutes a separate aerospace coating operation for which compliance determinations are performed separately. Prop. 211 at 19.

Section 211.275: Aerospace Flexible Primer

IEPA proposed that

> '[a]erospace flexible primer' means a primer for aerospace use that meets flexibility requirements such as those needed for adhesive bond-primed fastener heads or on surfaces expected to contain fuel. The aerospace flexible coating is required because it provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings as well as a flexible bridge between the fasteners, skin, and skin-to-skin joints on outer aircraft skins. This flexible bridge allows more topcoat flexibility around fasteners and decreases the chance of the topcoat cracking around the fasteners. The result is better corrosion resistance. Prop. 211 at 19.

Section 211.277: Aerospace Facility

IEPA proposed that "'[a]erospace facility' means any facility that produces, reworks, or repairs any commercial, civil, or military aerospace vehicle or component." Prop. 211 at 19.

Section 211.278: Aerospace Pretreatment Coating

IEPA proposed that "'[a]erospace pretreatment coating' means an organic coating that contains at least 0.5 percent acids by weight and is applied directly to metal or composite surfaces to provide surface etching, corrosion resistance, adhesion, and ease of stripping." Prop. 211 at 19-20.

Section 211.280: Aerospace Primer

IEPA proposed that

> '[a]erospace primer' means the first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and adhesion of subsequent coatings. Primers that are listed as specialty coatings in 35 Ill. Adm. Code 219.204(r)(2) are not included under this definition. Prop. 211 at 20.

Section 211.284: Aerospace Specialty Coating

IEPA proposed that

> '[a]erospace specialty coating' means a coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection. Aerospace specialty coatings are listed in 35 Ill. Adm. Code 219.204(r)(2). Prop. 211 at 20.

Section 211.289: Aerospace Vehicle or Component

IEPA proposed that

> '[a]erospace vehicle or component' means 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. This term includes any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any aircraft,

helicopter, missile, or space vehicle, including mockups and prototypes, models, molds, jigs, tooling, hardware jackets, and test coupons. Prop. 211 at 20; *see* CTG at A-4.

Section 211.300: Aircraft Fluid Systems

IEPA proposed that "'[a]ircraft fluid systems' means those systems that handle hydraulic fluids, fuel, cooling fluids, or oils." Prop. 211 at 20-21; *see* CTG at A-4 (defining "aircraft fluid systems").

Section 211.303: Aircraft Transparencies

IEPA proposed that "'[a]ircraft transparencies' means the aircraft windshield, canopy, passenger windows, lenses and other components which are constructed of transparent materials." Prop. 211 at 21; CTG at A-5.

Section 211.491: Antichafe Coating

IEPA proposed that "'[a]ntichafe coating' means a coating applied to areas of moving aerospace components that may rub during normal operations or installation." Prop. 211 at 21; CTG at A-5.

Section 211.500: Antique Aerospace Vehicle or Component

IEPA proposed that "'[a]ntique aerospace vehicle or component' means an aircraft or component thereof that is at least 30 years old and is not routinely in commercial or military service in the capacity for which it was designed." Prop. 211 at 21; *see* CTG at A-5.

Section 211.520: Aqueous Cleaning Solvent

IEPA proposed that

'[a]queous cleaning solvent' means a cleaning solvent in which water is the primary ingredient (at least 80 percent of cleaning solvent solution as applied must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives, such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93°C (200°F) (as reported by the manufacturer), and the solution must be miscible with water. Prop. 211 at 21; *see* CTG at A-5.

Section 211.712: Bearing Coating

IEPA proposed that "'[b]earing coating' means a coating applied to an antifriction bearing, a bearing housing, or the area adjacent to such a bearing in order to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a

bearing coating if it can also be classified as a dry lubricative material or a solid film lubricant." Prop. 211 at 21-22; CTG at A-5.

Section 211.737: Bonding Maskant

IEPA proposed that "'[b]onding maskant' means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding." Prop. 211 at 22; CTG at A-5.

Section 211.975: Chemical Agent-Resisting Coating

IEPA proposed that "'[c]hemical agent-resistant coating' means an exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents." Prop. 211 at 22; CTG at A-5.

Section 211.985: Chemical Milling Maskant

IEPA proposed that

> '[c]hemical milling maskant' means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include bonding maskants; critical use and line sealer maskants; seal coat maskants; maskants that must be used with a combination of Type I or II etchants and any of the above types of maskants (i.e., bonding, critical use and line sealer, and seal coat); or maskants that are listed as aerospace specialty coatings in 35 Ill. Adm. Code 219.204(r)(2). Prop. 211 at 22; CTG at A-5 – A-6.

JCAR questioned whether this definition requires the parenthetical phase. PC 1 at 3. The Board noted that the CTG includes it. *Id*., citing CTG at A-5 – A-6; Board Questions at 2. While the Board considered the parenthetical phrase a clarification, it asked IEPA to comment on whether the definition should include it. Board Questions at 2; see PC 1 at 3.

Mr. Davis responded that IEPA "believes that the definition is consistent with the one if the Aerospace CTG." Tr.1 at 12-13; *see* CTG at A-5 – A-6. While he indicated that the definition would be sufficient without the parenthetical, IEPA believes that it "provides some clarification." Tr.1 at 13. The Board agrees and retains it in its second-notice proposal.

Section 211.1095: Clear Coating for Aerospace Applications

IEPA proposed that "'[c]lear coating for aerospace applications' means a transparent coating usually applied over a colored opaque coating, metallic substrate, or placard to give improved gloss and protection to the color coat. In some cases, a clearcoat refers to any

transparent coating without regard to substrate." Prop. 211 at 22; *see* CTG at A-6 (defining "clear coating").

Section 211.1326: Commercial Exterior Aerodynamic Structure Primer

IEPA proposed that

> '[c]ommercial exterior aerodynamic structure primer' means a primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae, and landing gear and doors, for the purpose of extended corrosion protection and enhanced adhesion. Prop. 211 at 22-23; CTG at A-7.

JCAR questioned whether this definition should change "and landing gear and doors" to "landing gear, and doors." PC 1 at 3. The Board noted that the CTG defines this term without the comma JCAR suggested. Board Questions at 2, citing CTG at A-7. The Board asked IEPA to comment on whether it should propose JCAR's suggestions for second-notice review. Board Questions at 2; PC 1 at 3. "Specifically, does the definition refer to 'gear and doors' for landing, or does it refer to 'landing gear' and 'doors' as separate items in this series of components and structures? Board Questions at 3.

Mr. Davis responded that IEPA examined this language and concluded that the definition was intentionally written as proposed to "refer to the landing gear and landing gear doors." Tr.1 at 13-14. IEPA "recommends that the proposed original CTG language not be altered." *Id*. at 14; *see* CTG at A-7. The Board agrees and does not revise the definition in its second-notice proposal.

Section 211.1327: Commercial Interior Adhesive

IEPA proposed that "'[c]ommercial interior adhesive' means materials used in the bonding of passenger cabin interior components. These components must meet the Federal Aviation Administration fireworthiness requirements." Prop. 211 at 23; CTG at A-7.

JCAR questioned whether it would be "possible to add a cross-reference to the FAA fireworthiness requirements?" PC 1 at 3. The Board asked IEPA to comment on whether the definition should include that cross-reference. Board Questions at 2. If so, the Board asked IEPA to provide a citation to those fireworthiness requirements. *Id*.

Mr. Davis responded that the CTG does not cite these requirements, and IEPA "does not believe the cross reference is necessary." Tr.1 at 14; *see* CTG at A-7. He suggested that USEPA had not included a citation "to ensure that the most up-to-date FAA requirements are applicable." Tr.1 at 14. The Board agrees that a cross reference is not necessary and declines to add one to its second-notice proposal.

Section 211.1329: Compatible Substrate Primer

IEPA proposed that

> [c]ompatible substrate primer' means either compatible epoxy primer or adhesive primer. Compatible epoxy primer is primer that is compatible with the filled elastomeric coating and is epoxy-based. The compatible substrate primer is an epoxypolyamide primer used to promote adhesion of elastomeric coatings such as impact-resistant coatings. Adhesive primer is a coating that (1) inhibits corrosion and serves as a primer applied to bare metal surfaces or prior to adhesive application, or (2) is applied to surfaces that can be expected to contain fuel. Fuel tank coatings are excluded from this category. Prop. 211 at 23; CTG at A-7.

Section 211.1432: Confined Space

IEPA proposed that "'[c]onfined space' means a space that is large enough and so configured that an employee can bodily enter and perform assigned work; has limited or restricted means for entry or exit (for example, fuel tanks, fuel vessels, and other spaces that have limited means of entry); and is not suitable for continuous employee occupancy." Prop. 211 at 23; CTG at A-7.

Section 211.1555: Corrosion Prevention System

IEPA proposed that "'[c]orrosion prevention system' means a coating system that provides corrosion protection by displacing water and penetrating mating surfaces, forming a protective barrier between the metal surface and moisture. Coatings containing oils or waxes are excluded from this definition." Prop. 211 at 23; CTG at A-7.

Section 211.1567: Critical Use and Line Sealer Maskant

IEPA proposed that

> '[c]ritical use and line sealer maskant' means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling, and processing of magnesium, titanium, or high strength steel; high-precision aluminum chemical milling of deep cuts; and aluminum chemical milling of complex shapes. Materials used for repairs or to bridge gaps left by scribing operations (i.e., line sealer) are also included in this definition. Prop. 211 at 24; CTG at A-7 – A-8.

Section 211.1620: Cryogenic Flexible Primer

IEPA proposed that "'[c]ryogenic flexible primer' means a primer designed to provide corrosion resistance, flexibility, and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275°F and below)." Prop. 211 at 24; CTG at A-8.

Section 211.1625: Cryoprotective Coating

IEPA proposed that "'[c]ryoprotective coating' means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry, and prevent ice formation." Prop. 211 at 24; CTG at A-8.

Section 211.1735: Department of Defense Classified Coating

IEPA proposed that "'Department of Defense classified coating' means a coating that has been determined pursuant to Executive Order 13526, "Classified National Security Information," December 29, 2009, or any successor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form." Prop. 211 at 24.

Section 211.1820: Dry Lubricative Material for Aerospace Applications

IEPA proposed that "'[d]ry lubricative material for aerospace applications' means a coating consisting of lauric acid, cetyl alcohol, waxes, or other noncrosslinked or resin-bound materials that act as a dry lubricant." Prop. 211 at 24; *see* CTG at A-8 (defining "dry lubricative material").

Section 211.1895: Electrostatic Discharge and Electromagnetic Interference Coating

IEPA proposed that "'[e]lectrostatic discharge and electromagnetic interference coating' means a coating applied to space vehicles, missiles, aircraft radomes, and helicopter blades to disperse static energy or reduce electromagnetic interference." Prop. 211 at 25; CTG at A-8.

Section 211.1915: Elevated-Temperature Skydrol-Resistant Commercial Primer

IEPA proposed that "'[e]levated-temperature Skydrol-resistant commercial primer' means a primer applied primarily to commercial aircraft (or commercial aircraft adapted for military use) that must withstand immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at 150°F or higher for at least 1,000 hours." Prop. 211 at 25; CTG at A-8 – A-9.

Section 211.2035: Epoxy Polyamide Topcoat

IEPA proposed that "'[e]poxy polyamide topcoat' means a coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors." Prop. 211 at 25; CTG at A-9.

Section 211.2180: Exterior Primer for Large Commercial Aircraft

IEPA proposed that "'[e]xterior primer for large commercial aircraft' means an aerospace primer, applied to an aircraft of more than 110,000 pounds, maximum certified take-off weight manufactured for non-military use." Prop. 211 at 25.

Section 211.2340: Fire-Resistant Interior Coating

IEPA proposed that

> '[f]ire-resistant interior coating' means (1) for civilian aircraft, fire-resistant interior coatings are used on passenger cabin interior parts that are subject to the Federal Aviation Administration fireworthiness requirements; (2) for military aircraft, fire-resistant interior coatings are used on parts subject to the flammability requirements of military specifications for aircraft; and (3) for space applications, fire-resistant interior coatings are used on parts subject to NASA flammability requirements for space shuttles and space stations. Prop. 211 at 25; *see* CTG at A-9.

Section 211.2400: Flight Test Coating

IEPA proposed that "'[f]light test coating' means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation." Prop. 211 at 26; CTG at A-9.

Section 211.2412: Flush Cleaning at Aerospace Facilities

IEPA proposed that

> '[f]lush cleaning at aerospace facilities' means removal of contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component or coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item being cleaned and then drained, or assisted by air or hydraulic pressure, or by pumping. Handwipe cleaning operations where wiping, scrubbing, mopping, or other hand action are used are not included in this definition. Prop. 211 at 26; *see* CTG at A-9 – A-10 (defining "flush cleaning").

Section 211.2480: Fuel Tank Adhesive for Aerospace Applications

IEPA proposed that "'[f]uel tank adhesive for aerospace applications' means an adhesive used to bond components exposed to fuel and must be compatible with fuel tank coatings." Prop. 211 at 26; *see* CTG at A-10 (defining "fuel tank adhesive").

Section 211.2485: Fuel Tank Coating for Aerospace Applications

IEPA proposed that "'[f]uel tank coating for aerospace applications' means a coating applied to fuel tank components on an aerospace vehicle for the purpose of corrosion and/or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions." Prop. 211 at 26; *see* CTG at A-10 (defining "fuel tank coating").

Section 211.2612: General Aviation

IEPA proposed that "'[g]eneral aviation' means that segment of civil aviation that encompasses all facets of aviation except air carriers, commuters, and military. General aviation includes charter and corporate executive transportation, instruction, rental, aerial application, aerial observation, business, pleasure, and other special uses." Prop. 211 at 26.

Section 211.2613: General Aviation Rework Facility

IEPA proposed that "'[g]eneral aviation rework facility' means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components." Prop. 211 at 27.

Section 211.2795: Hand-Wipe Cleaning Operation at Aerospace Facilities

IEPA proposed that "'[h]and-wipe cleaning at aerospace facilities' means removing contaminants such as dirt, grease, oil, and coatings from an aerospace vehicle or component by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent." Prop. 211 at 27; *see* CTG at A-10 (defining "hand wipe cleaning operation").

Section 211.2980: High Temperature Coating

Under existing Section 211.2980, "[h]igh temperature coating' means, for purposes of 35 Ill. Adm. Code 218 and 219, a coating that is certified to withstand a temperature of 538ºC (1000ºF) for 24 hours." 35 Ill. Adm. Code 211.2980.

IEPA proposed to revise this section to provide that,

> [e]xcept as specified below, '~~H~~high temperature coating' means, for purposes of 35 Ill. Adm. Code 218 and 219, a coating that is certified to withstand a temperature of 538°C (1000°F) for 24 hours.
>
> "High temperature coating" means, for purposes of 35 Ill. Adm. Code 219.204(r), a coating designed to withstand temperatures of more than 350°F. Prop. 211 at 27; *see* CTG at A-10.

In Section 219.204(r), IEPA proposes VOM emission limitations applicable to aerospace facilities. *See* Prop. 219 at 70-74.

The Board notes that Section 211.2980 establishes a Celsius temperature limit with a Fahrenheit equivalent. 35 Ill. Adm. Code 211.2980. However, the proposed revision adds a limit of 350 °F without a Celsius equivalent. For consistency and clarity, the Board revises the proposed language to establish the limit as "177 °C (350 °F)."

Section 211.3160: Insulation Covering

IEPA proposed that "'[i]nsulation covering' means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage." Prop. 211 at 27; CTG at A-10.

Section 211.3180: Intermediate Release Coating

IEPA proposed that "'[i]ntermediate release coating' means a thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and generally to allow the use of less hazardous depainting methods." Prop. 211 at 27; CTG at A-11.

Section 211.3230: Lacquers

Under existing Section 211.3230, "'[l]acquers' means, with respect to coating of wood furniture, any clear wood finishes formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction, including clear lacquer sanding sealers." 35 Ill. Adm. Code 211.3230.

IEPA proposed to revise this section by adding a second sentence providing that, "[f]or purposes of 35 Ill. Adm. Code 219.204(r), 'lacquers' means a clear or pigmented coating formulated with a nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction. Lacquers are resoluble in their original solvent." Prop. 211 at 27-28; CTG at A-11.

Section 211.3360: Limited Access Space

IEPA proposed that "'[l]imited access space' means internal surfaces or passages of an aerospace vehicle or component that cannot be reached without the aid of an airbrush or a spray gun extension for the application of coatings." Prop. 211 at 28; CTG at A-11.

Section 211.3755: Metalized Epoxy Coating

IEPA proposed that "'[m]etalized epoxy coating' means an epoxy coating that contains relatively large quantities of metallic pigmentation for appearance and/or added protection." Prop. 211 at 28; CTG at A-11.

Section 211.3850: Miscellaneous Metal Parts and Products Coating

Under existing Section 211.3850,

> '[m]iscellaneous metal parts and products coating' means, for purposes of 35 Ill. Adm. Code 218 and 219, any protective, decorative or functional coating applied onto the surface of any metal part or metal product, even if attached to or combined with a nonmetal part or product;
>
> a) Including but not limited to underbody anti-chip (e.g., underbody plastisol) automobile and light-duty truck coatings;

b) But not including the following coatings which are subject to separate regulations: can coatings, coil coatings, metal furniture coatings, large appliance coatings, magnet wire coatings, and prime coat, primer surfacer coat, topcoat and final repair coat for automobile and light-duty trucks; and

c) Not including the following coatings: architectural coatings, automobile or light-duty truck refinishing coatings, coatings applied to the exterior of marine vessels, coatings applied to the exterior of airplanes, customized topcoat for automobiles and trucks if production is less than thirty-five vehicles per day, and high temperature aluminum coating applied to diesel-electric locomotives in Cook County. 35 Ill. Adm. Code 211.3850.

IEPA proposed to amend subsection (b) to provide that the definition does not include "the following coatings which are subject to separate regulations: can coatings;~~,~~ coil coatings;~~,~~ metal furniture coatings;~~,~~ large appliance coatings;~~,~~ magnet wire coatings;~~.~~ ~~and~~ prime coat, primer surfacer coat, topcoat, and final repair coat for automobile and light-duty trucks; and aerospace coatings subject to the requirements of Section 219.204(r)." Prop. 211 at 28.

Section 211.3870: Miscellaneous Metal Parts or Products Coating Line

Under existing Section 211.3870,

'[m]iscellaneous metal parts or products coating line' means, for purposes of 35 Ill. Adm. Code 218 and 219, a coating line in which any protective, decorative, or functional coating is applied onto the surface of any metal part or metal product, even if attached to or combined with a nonmetal part or product;

a) Including but not limited to underbody anti-chip (e.g., underbody plastisol) automobile and light-duty truck coatings;

b) But not including the following coatings which are subject to separate regulations: can coatings, coil coatings, metal furniture coatings, large appliance coatings, magnet wire coatings, and prime coat, primer surfacer coat, topcoat and final repair coat for automobile and light-duty trucks; and

c) Not including the following coatings: architectural coatings, automobile or light-duty truck refinishing coatings, coatings applied to the exterior of marine vessels, coatings applied to the exterior of airplanes, customized topcoat for automobiles and trucks if production is less than thirty-five vehicles per day, and high temperature aluminum coating applied to diesel-electric locomotives in Cook County. 35 Ill. Adm. Code 211.3870.

IEPA proposed to amend subsection (b) to provide that the definition does not include "the following coatings which are subject to separate regulations: can coatings;~~,~~ coil coatings;~~,~~ metal furniture coatings;~~,~~ large appliance coatings;~~,~~ magnet wire coatings;~~.~~ ~~and~~ prime coat, primer surfacer coat, topcoat and final repair coat for automobile and light-duty trucks; and aerospace coatings subject to the requirements of Section 219.204(r)." Prop. 211 at 28.

Section 211.3920: Mold Release Coating for Aerospace Applications

IEPA proposed that "'[m]old release coating for aerospace applications' means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed." Prop. 211 at 29; *see* CTG at A-11 (defining "mold release").

Section 211.4066: Nonstructural Adhesive for Aerospace Applications

IEPA proposed that "'[n]onstructural adhesive for aerospace applications' means an adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories listed in 35 Ill. Adm. Code 219.204(r)(2)." Prop. 211 at 29; *see* CTG at A-11 (defining "nonstructural adhesive").

Section 211.4215: Optical Antireflection Coating

IEPA proposed that "'[o]ptical antireflection coating' means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware." Prop. 211 at 30; CTG at A-11.

Section 211.4535: Part Marking Aerospace Coating

IEPA proposed that "'[p]art marking aerospace coating' means coatings or inks used to make identifying markings on aerospace materials, components, or assemblies. These markings may be either permanent or temporary." Prop. 211 at 30; *see* CTG at A-11 (defining "part marking coating").

Section 211.5072: Primer for General Aviation Rework Facility

IEPA proposed that "'[p]rimer for general aviation rework facility' means an aerospace primer applied at a general aviation rework facility." Prop. 211 at 30.

Section 211.5336: Radiation-Effect or Electric Coating

IEPA proposed that

> '[r]adiation-effect or electric coating' means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike

protection, electromagnetic pulse protection, and radar avoidance. Coatings that have been designated as "classified" by the Department of Defense are exempt from this definition. Prop. 211 at 30.

Section 211.5338: Radome

IEPA proposed that "'[r]adome' means, for purposes of the definitions of "Electrostatic Discharge and Electromagnetic Interference" and "Rain Erosion-Resistant Coating," the nonmetallic protective housing for electromagnetic transmitters and receivers (e.g., radar, electronic countermeasures, etc.)." Prop. 211 at 30; *see* CTG at A-12.

Section 211.5339: Rain Erosion-Resistant Coating

IEPA proposed that "'[r]ain erosion-resistant coating' means a coating or coating system used to protect the leading edges of aerospace parts such as flaps, stabilizers, radomes, engine inlet nacelles, etc. against erosion caused by rain impact during flight." Prop. 211 at 31; *see* CTG at A-12.

Section 211.5585: Research and Development Operation

Under existing Section 211.5585,

'Research and Development Operation' means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an operation whose purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not involved in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner. 35 Ill. Adm. Code 211.5585; *see* CTG at A-12 (defining "research and development").

IEPA proposed to add a reference to Section 219.204(r) as a provision to which the definition applies. Prop. 211 at 31.

Section 211.5675: Rocket Motor Bonding Adhesive

IEPA proposed that "'[r]ocket motor bonding adhesive' means an adhesive used in rocket motor bonding applications." Prop. 211 at 31; CTG at A-12.

Section 211.5680: Rocket Motor Nozzle Coating

IEPA proposed that "'[r]ocket motor nozzle coating' means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles." Prop. 211 at 31; CTG at A-12.

Section 211.5805: Rubber-Based Adhesive

IEPA proposed that "'[r]ubber-based adhesive' means a quick setting contact cement that provides a strong, yet flexible, bond between two mating surfaces that may be of dissimilar materials." Prop. 211 at 31; CTG at A-12.

Section 211.5855: Scale Inhibitor

IEPA proposed that "'[s]cale inhibitor' means, for the purposes of 35 Ill. Adm. Code Section 219.204(r), a coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of scale." Prop. 211 at 31-32; CTG at A-12.

Section 211.5883: Screen Print Ink for Aerospace Applications

IEPA proposed that "'[s]creen print ink for aerospace applications' means, for purposes of 35 Ill. Adm. Code 219.204(r), an ink used in screen printing processes during fabrication of decorative laminates and decals at aerospace facilities." Prop. 211 at 32; *see* CTG at A-12 (defining "screen print ink").

Section 211.5887: Sealant for Aerospace Applications

IEPA proposed that "'[s]ealant for aerospace applications' means a material used to prevent the intrusion of water, fuel, air, or other liquids or solids from certain areas of aerospace vehicles or components. There are two categories of sealants: extrudable/rollable/brushable sealants and sprayable sealants." Prop. 211 at 32; *see* CTG at A-13 (defining "sealant").

Section 211.5895: Seal Coat Maskant

IEPA proposed that "'[s]eal coat maskant' means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations." Prop. 211 at 32; CTG at A-13.

Section 211.5900: Self-Priming Topcoat for Aerospace Applications

IEPA proposed that

> '[s]elf-priming topcoat for aerospace applications' means a topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component. Self-priming topcoats for general aviation rework facilities are not included in this definition. Prop. 211 at 32; *see* CTG at A-13 (defining "self-priming topcoat").

Section 211.5905: Self-Priming Topcoat for General Aviation Rework Facilities

IEPA proposed that "'[s]elf-priming topcoat for general aviation rework facility' means a self-priming topcoat applied at a general aviation rework facility." Prop. 211 at 32-33; *see* CTG at A-13 (defining "self-priming topcoat").

Section 211.5907: Semi-Aqueous Cleaning Solvent

IEPA proposed that "'[s]emi-aqueous cleaning solvent' means a solution in which water is a primary ingredient (60 percent of the solvent solution, as applied must be water)." Prop. 211 at 33; *see* CTG at A-13 (requiring $\geq$ 60 percent water).

Section 211.6013: Silicone Insulation Material

IEPA proposed that "'[s]ilicone insulation material' means an insulating material applied to exterior metal aerospace surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from ablative coatings in that they are not 'sacrificial.' Prop. 211 at 33; CTG at A-13.

Section 211.6055: Smoothing and Caulking Compounds

IEPA proposed that "'[s]moothing and caulking compounds' means semi-solid materials which are applied by hand application methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a smoothing and caulking compound if it can also be classified as a sealant." Prop. 211 at 33; CTG at A-5 (defining "caulking and smoothing compounds").

Section 211.6064: Solid Film Lubricant

IEPA proposed that "'[s]olid film lubricant' means, for purposes of 35 Ill. Adm. Code 219.204(r), a very thin coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying (i.e., closely or tightly fitting) surfaces in aerospace applications." Prop. 211 at 33; *see* CTG at A-13.

Section 211.6133: Space Vehicle

IEPA proposed that

> '[s]pace vehicle' means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. Also included is auxiliary equipment associated with test, transport, and storage, that through contamination can compromise the space vehicle performance. Prop. 211 at 33-34; CTG at A-13.

Section 211.6137: Specialized Function Coating

IEPA proposed that "'[s]pecialized function coating' means, for purposes of 35 Ill. Adm. Code Section 219.204(r), a coating that fulfills extremely specific engineering requirements in aerospace applications that are limited in use and are characterized by low volume usage. This category excludes coatings covered in other specialty coating categories in 35 Ill. Adm. Code 219.204(r)(2)." Prop. 211 at 34; *see* CTG at A-14.

Section 211.6426: Structural Autoclavable Adhesive for Aerospace Applications

IEPA proposed that "'[s]tructural autoclavable adhesive for aerospace applications' means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave." Prop. 211 at 34; *see* CTG at A-14 (defining "structural autoclavable adhesive").

Section 211.6428: Structural Nonautoclavable Adhesive for Aerospace Applications

IEPA proposed that "'[s]tructural nonautoclavable adhesive for aerospace applications' means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines." Prop. 211 at 34; *see* CTG at A-14 (defining "structural nonautoclavable adhesive").

Section 211.6575: Temporary Protective Coating for Aerospace Applications

IEPA proposed that

> '[t]emporary protective coating for aerospace applications' means a coating applied to aerospace surfaces to provide scratch or corrosion protection during manufacturing, storage, or transportation. Two types include peelable protective coatings and alkaline removable coatings. These materials are not intended to protect against strong acid or alkaline solutions. Coatings that provide this type of protection from chemical processing are not included in this category." Prop. 211 at 34-35; *see* CTG at A-14 (defining "temporary protective coating").

Section 211.6583: Thermal Control Coating for Aerospace Applications

IEPA proposed that "'[t]hermal control coating for aerospace applications' means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the aerospace substrate." Prop. 211 at 35; *see* CTG at A-15 (defining "thermal control coating").

Section 211.6670: Topcoat

Under existing Section 211.6670,

> '[t]opcoat' means:

> Except as used in 35 Ill. Adm. Code 218.204(a)(2) and (q)(5) and 219.204(a)(2) and (q)(5), a coating applied to a substrate in a multiple coat operation other than prime coat, primer surfacer coat or final repair coat;
>
> For purposes of 35 Ill. Adm. Code 218.204(a)(2) and 219.204(a)(2), the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat;
>
> For purposes of 35 Ill. Adm. Code 218.204(q)(5) and 219.204(q)(5), any final coating applied to the interior or exterior of a pleasure craft. 35 Ill. Adm. Code 211.6670.

First, IEPA proposed to add to the first undesignated subsection a reference to Section 219.204(r), standards for aerospace facilities. Prop. 211 at 35.

Second, IEPA proposed to add a fourth undesignated subsection providing that "topcoat" means, "[f]or the purposes of 35 Ill. Adm. Code 219.204(r), a coating that is applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Topcoats that are listed as specialty coatings in 35 Ill. Adm. Code in 219.204(r)(2) are not included under this definition." Prop. 211 at 35; *see* CTG at A-15.

Section 211.6685: Topcoat for General Aviation Rework Facility

IEPA proposed that "'[t]opcoat for general aviation rework facility' means a topcoat applied at a general aviation rework facility." Prop. 211 at 35; *see* CTG at A-15.

Section 211.6720: Touch-Up Coating

Under existing Section 211.6720,

'[t]ouch-up coating' means:

> Except as used in 35 Ill. Adm. Code 218.204(q) and 219.204(q), for purposes of motor vehicle refinishing operations, a coating applied by brush or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections;
>
> For purposes of 35 Ill. Adm. Code 218.204(q) and 219.204(q), a coating used to cover minor coating imperfections appearing after the main coating operation. 35 Ill. Adm. Code 211.6720.

IEPA proposed to amend this definition by providing that

'[t]ouch-up coating' means:

> Except as used in 35 Ill. Adm. Code 218.204(q), ~~and~~ 219.204(q), and 219.204(r), ~~for purposes of motor vehicle refinishing operations,~~ a coating applied by brush or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections;
>
> For purposes of 35 Ill. Adm. Code 218.204(q), ~~and~~ 219.204(q), and 219.204(r), a coating used to cover minor coating imperfections appearing after the main coating operation. Prop. 211 at 35-36; *see* CTG at A-15 (defining "touch-up and repair coating").

Section 211.7260: Wet Fastener Installation Coating

IEPA proposed that "'[w]et fastener installation coating' means a primer or sealant applied by dipping, brushing, or daubing to fasteners that are installed before the coating is cured." Prop. 211 at 36; CTG at A-16.

Section 211.7275: Wing Coating

IEPA proposed that "'[w]ing coating' means a corrosion-resistant topcoat that is resilient enough to withstand the flexing of the wings." Prop. 211 at 36; CTG at A-16.

Part 219

Subpart A: General Provisions

Section 219.105: Test Methods and Procedures.

Section 219.105 establishes methods and procedures for various measurements, demonstrations, and determinations. 35 Ill. Adm. Code 219.105.

Subsection (e)(2). Subsection (e)(2) establishes methods and procedures to determine the overall efficiency of a capture system and control device for coating lines complying with alternative emission limitations under specified provision of Section 219.207 instead of Section 219.204. 35 Ill. Adm. Code 219.105(e)(2). IEPA proposed to add a reference to subsection (n) (Prop 219 at 21), in which it proposed to add alternative emission limitations for aerospace facilities (Prop. 219 at 84).

Subsection (j). IEPA proposed to add a subsection (j) with the heading "Cleaning Solvents Subject to Section 219.219(g)." Prop. 219 at 25.

Subsection (j)(1). IEPA proposed that, "[f]or aqueous and semiaqueous cleaning solvents, manufacturers' supplied data shall be used to determine the water content." Prop. 219 at 25; *see* CTG at B-9.

Subsection (j)(2). IEPA proposed that, "[f]or hand-wipe cleaning solvents required in Section 219.219(g)(2), manufacturers' supplied data or standard engineering reference texts or

other equivalent methods shall be used to determine the vapor pressure or VOM composite vapor pressure for blended cleaning solvents." Pro. 219 at 25; *see* CTG at B-9.

Section 219.106: Compliance Dates.

Section 219.106 establishes compliance deadlines for various provisions of Part 219.

Subsection (a). Subsection (a) lists subsections providing exceptions to a general compliance date of May 15, 1992. 35 Ill. Adm. Code 219.106(a). IEPA proposed to amend this subsection by adding a reference to proposed subsection (f). Prop. 219 at 25.

Subsection (f). IEPA proposed to add a single new subsection (f) providing in its entirety that "[a]ny owner or operator of a source subject to the requirements of Section 219.204(r) of this Part shall comply with the requirements in Section 219.204(r), as well as all applicable requirements in Sections 219.205, 219.207, 219.208, 219.211, and 219.219, by January 1, 2021." Prop. 219 at 26.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Section 219.110: Vapor Pressure or Organic Material or Solvent.

Subsection (b). Subsection (b) provides the equation for determining the vapor pressure of an organic material or solvent in a mixture "made up of both organic material compounds and compounds which are not organic material." 35 Ill. Adm. Code 219.110(b). IEPA proposed to amend this subsection by adding the introductory phrase "[e]xcept as provided in subsection (d) of this Section." Prop. 219 at 26.

Subsection (d). IEPA proposed to add this subsection establishing the equation to determine, "[f]or hand-wipe cleaning solvents used at aerospace facilities subject to Section 219.219(g) of this Part, the composite vapor pressure of a cleaning solvent consisting of multiple components." Prop. 219 at 27. In its proposed new subsection (g) of Section 219.219, IEPA proposed work practice standards for cleaning operations at aerospace facilities. Prop. 219 at 108-10.

Section 219.112: Incorporations by Reference. In a new subsection (cc), IEPA proposed to add an incorporation by reference of "40 CFR 82.4 (2020)." Prop. 219 at 31.

Subpart E: Solvent Cleaning

Section 219.187, Other Industrial Solvent Cleaning Operations, provides in subsection (a)(2)(B) that cleaning operations for emission units in listed categories are exempt from specified requirements of this section. 35 Ill. Adm. Code 219.187(a)(2)(B). IEPA proposed to add a subsection (a)(2)(B)(xiv) listing "[a]erospace facilities" as an additional exempt category. Prop. 219 at 32.

Subpart F: Coating Operations

Section 219.204: Emission Limitations. In its undesignated preamble, Section 219.204 provides that, with exceptions provided in subsequent sections, "no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating." 35 Ill. Adm. Code 219.204. Except as provided in subsections (a), (c), (g), (h), (j), (l), (n), (o), and (q), Section 219.204 requires compliance with the limitations by specified deadlines. *Id*. IEPA proposed to add a reference to subsection (r) (Prop. 219 at 47), in which IEPA proposed to add limitations application to aerospace facilities (Prop 219 at 70-74).

Subsection (r). In subsection (r) under the heading "Aerospace Facilities," IEPA proposed that,

> [o]n and after January 1, 2021, the owner or operator of an aerospace facility must comply with the coating limitations in this subsection (r). The limitations in this subsection (r) shall not apply to the following activities where coating of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and electronic parts and assemblies (except for coating of completed assemblies). The limitations in this subsection (r) shall also not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. The coating limitations in subsection (r)(2) of this Section shall not apply to aerosol coatings, Department of Defense classified coatings, or to the use of separate formulations of aerospace specialty coatings in volumes of less than 50 gallons per year, subject to a maximum exemption of 200 gallons for all such formulations applied annually. Prop. 219 at 70; *see* TSD at 12; CTG at 4-3, B-4.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Subsection (r)(1). Under the heading "VOM Content Limitations for Primers, Topcoats, and Chemical Milling Maskants," IEPA proposed limitations stated in both kilograms per liter (kg/l) and pounds per gallon (lb/gal) for nine categories of primers, topcoats, and maskants in subsections (A) – (I). Prop. 219 at 70-71; *see* TSD at 9; CTG at 4-4, CTG at B-4.

Subsection (r)(2). Under the heading "VOM Content Limitations for Aerospace Specialty Coatings," IEPA proposed limitations stated in both kilograms per liter (kg/l) and pounds per gallon (lb/gal) for 57 categories of coatings in subsections (A) – (EEE). Prop. 219 at 71-74; *see* TSD at 10-12; CTG at 4-1, 4-2 (Table 4-1: Specialty Coating VOC Content Limits (g/L)), B-1 - B-2.

Subsection (r)(2)(N). JCAR noted that the proposed VOM content limit for commercial interior adhesives in subsection (r)(2)(N) is 0.750 kg/l (6.3 lb/gal) when the federal limit is 0.760 kg/l. PC 1 at 5. The Board asked IEPA to comment on why the proposed standard is more restrictive than the federal standard. Board Questions at 2; PC 1 at 5. If IEPA supports a limit of 0.750 kg/l, the Board asked it to confirm the equivalent in lg/gal. Board Questions at 2.

Mr. Davis responded that 0.760 kg/l is the correct standard. Tr.1 at 15; *see* CTG at 4-2. IEPA did not intend this standard to be more stringent than the federal limit. Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the parenthetical pounds-per-gallon limits are correct, because they were not affected by that error." *Id*. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.760 kg/l.

Subsection (r)(2)(R). JCAR noted that the proposed VOM content limit for cryogenic flexible primer is 0.650 kg/l (5.4 lb/gal) when the federal limit is 0.645 kg/l. PC 1 at 5. The Board asked IEPA to comment on why the proposed standard is less restrictive than then federal standard. Board Questions at 3; PC 1 at 5. If IEPA supports a limit other than 0.645 kg/l, the Board asked IEPA to confirm the equivalent in lb/gal. Board Questions at 3.

Mr. Davis responded that 0.645 kg/l is the correct standard. Tr.1 at 15, 17; *see* CTG at 4-2. IEPA did not intend this standard to be less stringent than the federal limit. *See* Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the pounds-per-gallon limits equivalent is correct," because the error did not affect it. *Id*. at 15, 17. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.645 kg/l.

Subsection (r)(2)(U). JCAR noted that the proposed VOM content limit for dry lubricative material is 0.870 kg/l (7.3 lb/gal) when the federal standard is 0.880 kg/l. PC 1 at 5. The Board asked IEPA to comment on why the proposed standard is more restrictive than the

federal standard. Board Questions at 3; PC 1 at 5. If IEPA supports a limit other than 0.870 kg/l, the Board asked IEPA to confirm the equivalent in lb/gal. Board Questions at 3.

Mr. Davis responded that 0.880 kg/l is the correct standard. Tr.1 at 15, 17; *see* CTG at 4-2. IEPA did not intend this standard to be more stringent than the federal limit. *See* Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the pounds-per-gallon limit equivalent is correct," because the error did not affect it. *Id*. at 15, 17. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.880 kg/l.

Subsection (r)(2)(SS). JCAR noted that the proposed VOM content limit for scale inhibitor is 0.870 kg/l (7.3 lb/gal) when the federal limit is 0.880 kg/l. PC 1 at 5. The Board asked IEPA to comment on why the proposed standard is more restrictive than the federal standard. Board Questions at 3; PC 1 at 5. If IEPA supports a limit other than 0.870 kg/l, the Board asked IEPA to confirm the equivalent in lb/gal. Board Questions at 3.

Mr. Davis responded that 0.880 kg/l is the correct standard. Tr.1 at 15, 17; *see* CTG at 4-2. IEPA did not intend this standard to be more stringent than the federal limit. *See* Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the pounds-per-gallon limit equivalent is correct," because the error did not affect it. *Id*. at 15, 17. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.880 kg/l.

Subsection (r)(2)(XX). JCAR noted that the proposed VOM content limit for solid film lubricant is 0.870 kg/l (7.3 lb/gal) when the federal standard is 0.880 kg/l. PC 1 at 5. The Board asked IEPA to comment on why the proposed standard is more restrictive than the federal standard. Board Questions at 3; PC 1 at 5. If IEPA supports a limit other than 0.870 kg/l, the Board asked IEPA to confirm the equivalent in lb/gal. Board Questions at 3.

Mr. Davis responded that 0.880 kg/l is the correct standard. Tr.1 at 15, 17; *see* CTG at 4-2. IEPA did not intend this standard to be more stringent than the federal limit. *See* Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the pounds-per-gallon limit equivalent is correct," because the error did not affect it. *Id*. at 15, 17. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.880 kg/l.

Subsection (r)(2)(DDD). JCAR noted that the proposed VOM content limit for wet fastener installation coating is 0.670 kg/l (5.6 lb/gal) when the federal standard is 0.675 kg/l. PC 1 at 5-6. The Board asked IEPA to comment on why the proposed standard is more restrictive than the federal standard. Board Questions at 3; PC 1 at 5-6. If IEPA supports a limit other than 0.670 kg/l, the Board asked IEPA to confirm the equivalent in lb/gal. Board Questions at 3.

Mr. Davis responded that 0.675 kg/l is the correct standard. Tr.1 at 15, 17; *see* CTG at 4-2. IEPA did not intend this standard to be more stringent than the federal limit. *See* Tr.1 at 16. Mr. Davis explained that IEPA's drafting process introduced an unintentional rounding error "due to the number of significant digits that would appear in the rule." *Id*. at 15. He added that "the pounds-per-gallon limit equivalent is correct," because the error did not affect it. *Id*. at 15, 17. Based on IEPA's testimony, the Board amends its second-notice proposal with a standard of 0.675 kg/l.

Section 219.205: Daily-Weighted Average Limitations. In an undesignated preamble, Section 219.205 provides that owners and operators of coating lines subject to the limitations in Section 219.204 must operate coating lines in compliance with subsections (a) – (j). 35 Ill. Adm. Code 219.205. IEPA proposed to add a reference to subsection (k) (Prop. 219 at 74), in which it proposed requirement for the application of coatings at aerospace facilities (Prop. 219 at 79).

Subsection (k). IEPA proposed that "[n]o owner or operator of an aerospace facility subject to the limitations of Section 219.204(r) of this Subpart shall apply coatings at the subject facility" unless the application meets the requirements of proposed subsection (k)(1) or (k)(2)." Prop. 219 at 79.

Subsection (k)(1). IEPA proposed that,

> [f]or each averaging plan that involves multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(r) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used." Prop. 219 at 79.

Subsection (k)(2). IEPA proposed that,

> [f]or each averaging plan that involves coatings subject to more than one numerical emission limitation in Section 219.204(r) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied. Prop. 219 at 79.

JCAR asked whether the reference to USEPA's policy statement should include a citation, and it suggested "51 Fed. Reg. 43814 (December 4, 1986)." PC 1 at 6. The Board asked IEPA to comment on whether the second-notice proposal should include a citation and, if so, whether this or another citation is correct. Board Questions at 3; PC 1 at 6.

IEPA first noted that Section 219.205 refers a number of times to USEPA's Emissions Trading Policy Statement but does not consistently provide a citation to it. Tr.1 at 19-20. Mr. Davis indicated that the Board could include the citation in each of the subsections of Section

219.205. *Id*. at 20. The Board agrees that the citation clarifies the rule and adds it to proposed subsection (k) and to existing subsections (f), (g), (h), and (j).

Section 219.207: Alternative Emission Limitations.

Subsection (a). Subsection (a) provides that the owner or operator of a coating line may comply with alternative emission limitations if it meets conditions including operating a capture system and control device that complies with the applicable subsection (c) through (m). 35 Ill. Adm. Code 219.207(a). IEPA proposed to add a reference to subsection (n) (Prop. 219 at 80), in which it proposed requirements for application of coatings at aerospace facilities (Prop. 219 at 84).

Subsection (a) also provides that a capture system and control device that does not comply with applicable subsection (c) through (m) "may be used as an alternative to compliance with Section 219.204 of this Subpart only if the alternative is approved by the Agency and approved by the USEPA as a SIP revision." 35 Ill. Adm. Code 219.207(a). IEPA proposed to add a reference to subsection (n) (Prop. 219 at 80), in which it proposed requirements for application of coatings at aerospace facilities (Prop. 219 at 84).

Subsection (n). IEPA proposed that "[n]o owner or operator of an aerospace facility that is equipped with a capture system and control device shall operate the subject aerospace coating operation unless" it complies with subsection (1) or (2). Prop. 219 at 84.

Subsection (n)(1). As the first compliance alternative, IEPA proposed that "[t]he capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the aerospace coating operation." Prop. 219 at 84; *see* TSD at 8-9; CTG at B-8.

Subsection (n)(2). As the second compliance alternative, IEPA proposed that "[t]he owner or operator of the aerospace coating operation complies with all requirements set forth in subsection (b)(2) of this Section," which addresses alternative add-on control methodologies. Prop. 219 at 84; *see* 35 Ill. Adm. Code 219.207(b)(2).

Section 219.208: Exemptions from Emission Limitations.

Subsection (a). Subsection (a) provides "[e]xemptions for all coating categories except wood furniture coating." 35 Ill. Adm. Code 219.208(a). IEPA proposed to add "aerospace facilities" as a second category for which exemptions are not provided. Prop. 219 at 84.

Subsection (f). IEPA this subsection with the heading "Applicability for aerospace facilities." Prop. 219 at 87.

Subsection (f)(1). IEPA proposed that,

> [e]xcept as provided in subsection (f)(6), the requirements of this Subpart shall apply to an aerospace facility's aerospace coating operations and cleaning operations on and after January 1, 2021, if the source contains process emission

> units, which as a group have a potential to emit 22.7 Mg (25 tons) or more of VOM per calendar year and have not limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable permit or SIP revision. Prop. 219 at 87; *see* TSD at 12.

In its motion to amend its proposal, IEPA noted that subsection (f)(1) refers to a subsection (f)(6) "which does not exist." Mot. Amend at 1; *see* Tr.1 at 21; PC 1 at 6; Board Questions at 4. Because it should instead refer to (f)(4), IEPA moved the amend this subsection with that correction. *Id*. at 2. No participant responded to IEPA's motion, and the Board agrees that the proposed amendment corrects this subsection. The Board grants IEPA's motion to amend and includes the amendment in its second-notice proposal.

Also, Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Finally, counsel for Premier Air Center, Inc. d/b/a West Star Aviation, Inc. (Premier) asked whether facilities accepting a VOM emissions limit less than 25 tons per year before the compliance date of the rule "are exempted from the entire Subpart F, which includes the cleaning requirements in Section 219.219?" Tr.1 at 22. IEPA responded that "such facilities are not exempt from 'the entire Subpart F.'" IEPA Resps. at 1. IEPA stressed that Subpart F includes "coating limitations, cleaning requirements, and work practice standards for various categories of coatings, with varying applicability thresholds." *Id*. IEPA states that facilities falling below the applicability threshold in this subsection "are exempted from the bulk of the new proposed provisions for aerospace operations," including cleaning requirements in Section 219.219. *Id*. However, under proposed Section 219.208(f)(4), these sources must comply with the recordkeeping and reporting requirements for exempt aerospace facilities in Section 219.211(k). *Id*.

Subsection (f)(2). IEPA proposed that, "[i]f a source ceases to fulfill the criteria of subsection (f)(1) of this Section, the requirements of this Subpart shall continue to apply to any aerospace facility which was ever subject to the requirements of this Subpart." Prop. 219 at 87.

Subsection (f)(3). IEPA proposed that

> [t]he limitations of Section 219.204(r)(2) [emission limitations for aerospace specialty coatings] shall not apply to touch-up coatings at aerospace facilities,

> provided that the combined source-wide volume of the coatings that do not comply with the limitations of Section 219.204(r)(2) of this Part used at an aerospace facility does not exceed 2.85 l (3 quarts) per 24-hour period or exceed 209 l/yr (55 gal/yr) for any rolling twelve-month period. Recordkeeping and reporting for touch-up coatings shall be consistent with Section 219.211(j)(2). Prop. 219 at 87-88.

Subsection (f)(4). IEPA proposed that

> [t]he requirements in Section 219.211(k) [Recordkeeping and Reporting: Exempt Aerospace Facilities] shall apply to an aerospace facility's aerospace coating operations and cleaning operations on and after January 1, 2021, if the source contains process emission units, which as a group, have a potential to emit less than 22.7 Mg (25 tons) of VOM per calendar year or have limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable operating permit or SIP revision. Prop. 219 at 88.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Section 219.211: Recordkeeping and Reporting.

Subsection (c). Subsection (c) provides that "[a]ny owner or operator of a coating line subject to the limitations of Section 219.204 of this Subpart other than Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D), or (r) of this Subpart and complying by means of Section 219.204 of this Subpart" must comply with specified certification and recordkeeping requirements in subsections (1) through (3). 35 Ill. Adm. Code 219.211(c). IEPA proposed to add Section 219.204(r), Aerospace Facilities, as an additional exception. Prop. 219 at 90.

Subsection (j). IEPA proposed that, "[o]n and after January 1, 2021, the owner or operator of an aerospace facility subject to the requirements of this Subpart pursuant to Section 219.208(f)(1) of this Subpart [applicability of exemptions for aerospace facilities] shall comply with requirements in subsection (1) through (3). Prop. 219 at 101.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to

propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Subsection (j)(1). IEPA proposed that "[e]ach owner or operator using coatings listed in Section 219.204(r) must comply with subsections (A) and (B). Prop. at 101. Subsection (A) requires that the owner or operator "[m]aintain a current list of coatings in use with category and VOM content as applied." Prop. 219 at 101; *see* CTG at B-8. Subsection (B) requires that the owner or operator "[r]ecord coating usage in an annual basis." Prop. 219 at 101; *see* CTG at B-8.

Subsection (j)(2). IEPA proposed that "[a]ach owner or operator using touch-up coatings that do not meet the limitations of Section 219.204(r)(2)" must comply with subsections (A) through (F). Prop. 219 at 101

Subsection (j)(2)(A). IEPA proposed that the owner or operator must "[c]ollect and record the name, identification number, and volume used of each touch-up coating that does not meet the limitations of Section 219.204(r)(2), as applied in each aerospace coating operation, per 24-hour period and per month." Prop. 219 at 101.

Subsection (j)(2)(B). IEPA proposed that the owner or operator must "[p]erform calculations on a daily basis, and maintain at the source records of such calculations, of the combined volume of touch-up coatings that do not meet the limitations of Section 219.204(r)(2) used source-wide for each 24-hour period." Prop. 219 at 101.

Subsection (j)(2)(C). IEPA proposed that the owner or operator must "[p]erform calculations on a monthly basis, and maintain at the source records of such calculations, of the combined volume of touch-up coatings that do not meet the limitations of Section 219.204(r)(2) used source-wide for the month and the rolling 12-month period." Prop. 219 at 101-02.

Subsection (j)(2)(D). IEPA proposed that the owner or operator must "[p]repare and maintain at the source an annual summary of the information required to be compiled pursuant to subsections (j)(2)(A), (j)(2)(B), and (j)(2)(C) of this Section on or before January 31 of the following year." Prop. 219 at 102.

Subsection (j)(2)(E). IEPA proposed that the owner or operator must "[m]aintain at the source for a minimum period of three years all records required to be kept under this subsection (j)(2) and make such records available to the Agency upon request." Prop. 219 at 102.

Subsection (j)(2)(F). IEPA proposed that the owner or operator must

> [n]otify the Agency in writing if the combined use of touch-up coatings that do not meet the limitations of Section 219.204(r)(2) at the source ever exceeds a volume of 2.85 l (3 quarts) per 24-hour period or exceeds 209 l/yr (55 gal/yr) for any rolling 12-month period within 30 days after any such exceedance. Such notification shall include a copy of any records of such exceedance. Prop. 219 at 102.

Subsection (j)(3). IEPA proposed that "[e]ach owner or operator using cleaning solvents required in Section 219.219(e) or (g) [work practice standards for aerospace facilities]" must comply with subsections (A) through (C). Prop. 219 at 102.

Subsection (j)(3)(A). IEPA proposed that that owner or operator must, "[f]or aqueous and semiaqueous hand-wipe cleaning solvents, maintain a list of materials used with corresponding water contents." Prop. 219 at 102; *see* CTG at B-8.

Subsection (j)(3)(B). For vapor pressure compliant hand-wipe cleaning solvents, IEPA first proposed in subsection (B)(i) that the owner or operator must "[m]aintain a current list of cleaning solvents in use with their respective vapor pressures or, for blended solvents, VOM composite vapor pressures." Prop. 219 at 102; *see* CTG at B-9. IEPA proposed in subsection (B)(ii) that the owner or operator must "[r]ecord cleaning solvent usage on an annual basis." *Id*.

Subsection (j)(3)(C). For cleaning solvents with a vapor pressure greater than 45 mmHg used in exempt hand-wipe cleaning operations, IEPA first proposed in subsection (C)(i) that the owner or operator must "[m]aintain a list of exempt hand-wipe cleaning processes." Prop. 219 at 102; *see* CTG at B-9. IEPA proposed in subsection (C)(ii) that the owner or operator must "[r]ecord cleaning solvent usage on an annual basis." *Id*.

Subsection (j)(4). IEPA proposed that "[e]ach owner or operator using control equipment under Section 219.207(n) [Alternative Emission Limitations], shall meet all applicable testing, monitoring, and recordkeeping requirements of Section 219.105(c), (d), and (e)." Prop. 219 at 103.

Subsection (j)(5). IEPA proposed that, "[b]y January 1, 2021, or upon initial start-up, whichever is later, the owner or operator of an aerospace facility shall submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements of Section 219.219(e) and (g) [work practice standards]." Prop. 219 at 103.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Subsection (j)(6). IEPA proposed that "[e]ach owner and operator of an aerospace facility shall notify the Agency of any violation of this Part by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation." Prop. 219 at 103.

Subsection (k). IEPA proposed this subsection with the heading "Exempt Aerospace Facilities." Prop. 219 at 103.

Subsection (k)(1). IEPA proposed that, "[f]or aerospace facilities that are exempt under Section 219.208(f)(1) of this Subpart, by January 1, 2021, or upon initial start-up, the owner or operator of an aerospace facility shall certify to the Agency that the source is exempt under such provisions." Prop. 219 at 103.

The certification must include "[a] declaration that the source is exempt under Section 219.208(f)(1) of this Subpart." Prop. 219 at 103. It must also include "[c]alculations that demonstrate that the source meets the criteria for exemption." Prop. 219 at 103.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Subsection (k)(2). IEPA proposed that,

> [f]or sources exempt under Section 219.208(f)(1) of this Subpart, on and after January 1, 2021, the owner or operator of an aerospace facility shall collect and record all of the following information for each aerospace coating operation and cleaning operation, as applicable, and maintain the information at the source for a period of three years. The owner or operator shall, upon request by the Agency or the USEPA, submit the information to the Agency and the USEPA within 30 calendar days from the date of the request, along with any other documentation

necessary to demonstrate that the aerospace facility is exempt from the requirements of this Subpart. Prop. 219 at 103.

The information includes "[t]he name and identification number of each coating as applied and cleaning solvent used." Prop. 219 at 103. It must also include "[t]he weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied and cleaning solvent used on a monthly basis." Prop. 219 at 103.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2.; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Subsection (k)(3). IEPA proposed that, "[o]n and after January 1, 2021, any owner or operator of an aerospace facility exempt under Section 219.208(f)(1) of this Subpart [exemption for aerospace facilities] shall notify the Agency if the source's VOM emissions exceed the criteria in Section 219.208(f)(1) of this Subpart by sending a copy of calculations showing such an exceedance within 30 days after the exceedance occurs." Prop. 219 at 104.

Mr. Davis acknowledged that "any amendments adopted as a result of this rulemaking will not be adopted by January 1, 2021." David Test. at 2; *see* Tr.1 at 23. IEPA "intends to propose a more appropriate compliance deadline when the likely date of the adoption of the amendments becomes more apparent." Davis Test. at 2; *see* Tr.1 at 23; IEPA Resps. at 1.

During the second hearing, the Board asked IEPA whether it would object if the Board during second notice "agreed to a specific compliance date that is the same as the date that any rules would take effect?" Tr.2 at 8.

IEPA recommended that the Board adopt a compliance date of July 1, 2021. PC 4 at 1; *see supra* at 3-4. The Board revises its proposal to reflect IEPA's recommended date.

Section 219.219: Work Practice Standards for Automobile and Light-Duty Truck Assembly Coatings and Miscellaneous Metal and Plastic Parts Coatings.

IEPA first proposed to amend the title of this section by adding a reference to "aerospace facilities." Prop 219 at 104.

Subsection (d). IEPA proposed that

> [s]ubsections (e) and (g) shall not apply to the following activities where cleaning of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and cleaning of electronic parts and assemblies (except for cleaning of completed assemblies). Subsections (e) and (g) shall also not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. Subsections (e) and (g) shall also not apply to aqueous cleaning solvents. Prop. 219 at 106; *see* CTG at B-1.

JCAR questioned why subsection (d) excludes specified activities from the requirement of subsection (e) and (g). PC 1 at 6. While the Board noted similar exclusions in the existing rules and the CTG, it asked IEPA to comment on the basis for this exclusion in subsection (d). Board Questions at 4; PC 1 at 6.

IEPA responded that consistency with the CTG is "the sole basis for the exclusion of these activities." Tr.1 at 21. IEPA commented that "USEPA developed a guideline, including the cited exclusions, based on its expertise in the field and input provided by stakeholders." *Id*. IEPA concluded by recommending that the proposed rules retain these exclusions. *Id*. The Board agrees and declines to strike them from its second-notice proposal.

Subsection (e). IEPA proposed that, except as provided in subsections (d) and (f), owners or operators must meet the requirements in subsections (1) through (7). Prop.219 at 106.

Subsection (e)(1). IEPA proposed that the owner or operator must "[e]nsure that all fresh and used cleaning solvents, except semi-aqueous cleaning solvents, used in solvent cleaning operations are stored in containers that shall be kept closed at all times except when filling or emptying. Prop. 29 at 106; *see* CTG at 4-6, B-7.

Subsection (e)(2). IEPA proposed that the owner or operator must "[e]nsure that mixing and storage containers used for VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing these materials." Prop. 219 at 107.

Subsection (e)(3). IEPA proposed that the owner or operator must "[e]nsure that cloth and paper, or other absorbent applicators, moistened with cleaning solvents are stored in closed containers (cotton-tipped swabs used for very small cleaning operations are exempt)." Prop. 219 at 107; *see* CTG at 4-6, B-7 – B-8.

Subsection (e)(4). IEPA proposed that the owner or operator must "[m]inimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials." Prop. 219 at 107; *see* CTG at 4-6, B-7 – B-8.

Subsection (e)(5). IEPA proposed that the owner or operator must "[c]onvey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes." Prop. 219 at 107; *see* CTG at 4-6. B-7 – B-8

Subsection (e)(6). IEPA proposed that the owner or operator must "[m]inimize VOM emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers." Prop. 219 at 107

Subsection (e)(7). IEPA proposed that the owner or operator must apply all coatings using one or more of applications methods listed in subsection (A) through (H):

A) Electrostatic spray;

B) High volume low pressure (HVLP) spray;

C) Flow coating. For the purposes of this subsection (e)(7)(C), flow coating means a non-atomized technique of applying coating to a substrate with a fluid nozzle with no air supplied to the nozzle;

D) Roll coating;

E) Dip coating, including electrodeposition. For purposes of this subsection (e)(7)(E), electrodeposition means a water-borne dip coating process in which opposite electrical charges are applied to the substrate and the coating. The coating is attracted to the substrate due to the electrochemical potential difference that is created;

F) Brush coating;

G) Cotton-tipped swab application; or

H) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if the method is approved in writing by the Agency. Prop. 219 at 107-08; *see* CTG at 4-4, B-4.

The Board asked IEPA to comment on why this application method is the standard for an alternative. Board Questions at 5, citing TSD at 12. The Board also asked IEPA to comment on why its proposal would not allow the use of alternative non-spray coating application methods. *Id*.

IEPA responded that HVLP and electrostatic spray methods are required by the rule "because they are the methods that were considered RACT and required by the CTG." Tr.1 at 30. Mr. Davis added that methods such as flow coating, roll coating, dip coating, brush coating, and swab application would generally have better transfer efficiencies than spray coating methods. *Id*. at 31. He explained that, when spraying coatings that contain VOM, "you atomize the particles, and there are more emissions." *Id*. He concluded that non-spray alternatives may be acceptable if they have transfer efficiencies equivalent to HVLP or electrostatic spraying. *Id*.

Subsection (f). IEPA proposed that the application method limitations in subsection (e)(7) do not apply to the uses or circumstances listed in subsections (1) through (7). Prop. 219 at 108.

Subsection (f)(1). IEPA proposed that the limitations do not apply to "[a]ny situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces." Prop. 219 at 108; *see* CTG at 4-4, B-5.

Subsection (f)(2). IEPA proposed that the limitations do not apply to "[t]he application of aerospace specialty coating." Prop.219 at 108; *see* CTG at 4-5, B-5.

Subsection (f)(3). IEPA proposed that the limitations do not apply to "[t]he application of coatings that contain fillers that adversely affect atomization with HVLP spray guns and that the Agency has determined cannot be applied by any of the application methods specified in subsection (e)(7) above." Prop. 219 at 108; *see* CTG at 4-5, B-5.

Subsection (f)(4). IEPA proposed that the limitations do not apply to "[t]he application of coatings that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 inch) and that the Agency has determined cannot be applied by any of the application methods specified in subsection (e)(7) above." Prop. 219 at 108; *see* CTG at 4-5, B-5.

Subsection (f)(5). IEPA proposed that the limitations do not apply to "[t]he use of airbrush application methods for stenciling, lettering, and other identification markings." Prop. 219 at 108; *see* CTG at 4-5, B-5.

Subsection (f)(6). IEPA proposed that the limitations do not apply to "[t]he use of hand-held spray can application methods." Prop. 219 at 108; *see* CTG at 4-5, B-5.

Subsection (f)(7). IEPA proposed that the limitations do not apply to "[a]pplication of touch-up and repair coatings." Prop. 219 at 108; *see* CTG at 4-5, B-5.

Subsection (g). IEPA proposed to add this subsection with the heading "Cleaning Operations at Aerospace Facilities." Prop. 219 at 108.

Subsection (g)(1). Under the heading "Hand-wipe cleaning at aerospace facilities," IEPA proposed that "[h]and-wipe cleaning (excluding cleaning of spray gun equipment performed in accordance with subsection (g)(3)) shall use cleaning solvents that meet the definition of aqueous cleaning solvent or have a composite vapor pressure of 45 mm Hg (24.1 in. H_2O) or less at 20°C (68°F)." Prop. 210 at 108; TSD at 12; *see* CTG at 4-6; B-5.

Subsection (g)(2). IEPA proposed that 13 cleaning operations listed in subsection (A) through (M) "are exempt from the requirements of subsection (g)(1). Prop. 219 at 108.

Subsection (g)(2)(A). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning during the manufacture, assembly, installation, maintenance, or testing of

components of breathing oxygen systems that are exposed to the breathing oxygen." Prop. 219 at 108; *see* CTG at 4-6, B-6.

Subsection (g)(2)(B). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, hydrazine)." Prop. 219 at 108; *see* CTG at 4-6, B-6.

Subsection (g)(2)(C). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning and surface activation prior to adhesive bonding." Prop. 219 at 109; *see* CTG at 4-6, B-6.

Subsection (g)(2)(D). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning of electronic parts and assemblies containing electronics parts." Prop. 219 at 109; *see* CTG at 4-6, B-6.

Subsection (g)(2)(E). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning of aircraft fluid systems and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(F). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning of fuel cells, fuel tanks, and confined spaces." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(G). IEPA proposed to exempt from the requirements of subsection (g)(1) "[s]urface cleaning of solar cells, coated optics, and thermal control surfaces." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(H). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used on the interior of the aircraft." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(I). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(J). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning of aircraft transparencies, polycarbonate, or glass substrates." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(K). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning and solvent usage associated with research and development, quality control, or laboratory testing." Prop. 219 at 109; *see* CTG at 4-7, B-6.

Subsection (g)(2)(L). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning operations, using nonflammable liquids, conducted within 5 feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections." Prop. 219 at 109; *see* CTG at 4-7, B-6 – B-7.

Subsection (g)(2)(M). IEPA proposed to exempt from the requirements of subsection (g)(1) "[c]leaning operations identified as essential uses under the Montreal Protocol for which the United States Environmental Protection Agency Administrator has allocated essential use allowances or exemptions in 40 CFR 82.4." Prop. 219 at 109; *see* CTG at 4-7, B-7.

Subsection (g)(3). Under the heading "Spray gun cleaning at aerospace facilities," IEPA proposed that "[s]pray gun cleaning, in which spray guns are used for the application of coatings or any other materials that require the spray guns to be cleaned," must be cleaned by one or more of the methods listed in subsections (A) through (D). Prop. 219 at 109; *see* CTG at 2-8 – 2-9, 3-7 – 3-8, B-7.

Subsection (g)(3)(A). Under the heading "Enclosed system," IEPA first proposed in subsection (i) a requirement to "[c]lean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing solvent through the gun." Prop. 219 at 110.

In subsection (ii), IEPA proposed that "[e]ach owner or operator using an enclosed spray gun cleaner shall visually inspect the seals and all other potential sources of leaks at least once per month. Each inspection shall occur while the spray gun cleaner is in operation. If leaks are found in the enclosed system, the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued." Prop. 219 at 110.

Subsection (g)(3)(B). Under the heading "Nonatomized cleaning," IEPA proposed a requirement to "[c]lean the spray gun by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air shall be used. Direct the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use." Prop, 219 at 110; *see* CTG at 4-8, B-7.

Subsection (g)(3)(C). Under the heading "Disassembled spray gun cleaning," IEPA proposed a requirement to "[d]isassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, soak the components in a vat, which shall remain closed during the soaking period and when not inserting or removing components." Prop. 219 at 110; *see* CTG at 4-8, B-7.

Subsection (g)(3)(D). Under the heading "Atomized cleaning," IEPA proposed a requirement to "[c]lean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions." Prop. 219 at 110; *see* CTG at 4-8, B-7.

Subsection (g)(4). Under the heading "Flush cleaning at aerospace facilities," IEPA proposed that,

> [f]or cleaning solvents used in flush cleaning of parts, assemblies, and coating line components, the used cleaning solvent (except for semiaqueous cleaning solvents) must be emptied into an enclosed container or collection system that is kept closed when not in use or captured with wipers provided they comply with the housekeeping requirements of (e)(1) through (3) of this Section. Aqueous cleaning solvents are exempt from these requirements. Prop. 219 at 110; *see* CTG at 4-7, B-7

TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

Geographic Regions and Sources Affected

The geographic region that would be subject to IEPA's proposal is the Metro East area, "which for purposes of this rulemaking consists of Madison, Monroe, and St. Clair Counties." SR at 7. The proposal would apply to "aerospace manufacturing and rework of commercial, civil, or military aerospace vehicles or component at sources located in the Metro-East area that have a potential to emit 25 tons per year or more of VOM." *Id.*; *see* TSD at 4, 9.

IEPA consulted the CTG and reviewed its emissions database and sources in the region to determine that "the following three sources would potentially be affected by the proposed regulations: Gulfstream Aerospace Services Corp. in Cahokia, Premiere Air Center Inc. in East Alton, and Boeing in Mascoutah." SR at 7; TSD at 4. IEPA clarified that determining its proposal may apply to these sources is not a final determination of whether the sources would be affected by the proposed regulations. TSD at 4.

Projected Emissions Reduction

The aerospace CTG projects that the proposed rules "would result in VOM reductions of approximately 81% from uncontrolled VOM emissions and reduce VOM emissions from coating application and cleaning processes by 30 to 40 percent by implementing the proposed rule's work practice standards." SR at 6; TSD at 12. However, the proposal would not apply to any uncontrolled aerospace facility. *Id*.

"[T]wo of the potentially affected sources are currently subject to other coating limits and work practices standards" in Part 219, so many of the projected reductions have already occurred. TSD at 12; *see* SR at 6. The third potentially affected source "is the source that plans to expand its operations and thus is not yet subject." TSD at 12. Consequently, IEPA "does not anticipate significant emission reductions due to the adoption of the proposed rule." *Id.*

IEPA does not expect that the proposed rules "will result in additional emissions of any pollutant at existing sources in Illinois." TSD at 14. It argues that "[t]he proposed rule will not interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of the CAA." *Id.*

Technical Feasibility

Compliant Coatings

IEPA argues that compliant coatings "have been widely available since the 1998 implementation of the aerospace CTG, thus the CTG limits proposed in this rulemaking are technically feasible." TSD at 7; *see* CTG at 3-1 – 3-2; SR at 7; Davis Test. at 2.

However, "[s]pecialty coatings typically have relatively low usage, so reformulation to lower VOC contents does not produce significant air quality benefits nor is it economically feasible for paint suppliers. . . . Therefore, lower VOC formulations are not available for most of the low volume specialty coating categories." TSD at 7, citing CTG at 3-1.

Work Practices

The CTG recommends materials and practices to limit VOM emissions. TSD at 8; *see* CTG at 3-9 – 3-10. IEPA acknowledges that the "CTG does not provide cost estimates for cleaning product substitutions and methods." TSD at 8. However, IEPA argues that "substitutes have been in use for many years and are easily available as the most commonly used cleaning products in the aerospace industry." *Id*.; *see* SR at 7; Davis Test. at 2.

Coating Delivery Equipment

IEPA also addresses coating delivery equipment, which can improve transfer efficiency and reduce VOM emissions. TSD at 7. IEPA identifies three possible equipment changes: HVLP spray guns, electrostatic spray guns, and conventional high transfer efficiency application methods such as dip coating, roll coating, brush coating, and low coating. *Id*. at 7, 8; *see* CTG at 3-2 – 3-9.

The TSD cites comments on a 2015 review of the aerospace NESHAP: "[b]ecause high-efficiency application equipment generates less coating overspray than conventional equipment, the costs of upgrading to new equipment can be offset by cost savings from reduced coating consumption and reduced spray booth filter maintenance. For these reasons, many facilities are likely to have already switched to high-efficiency application methods." TSD at 8; *see* IEPA Resps. (attaching comments); Board Questions at 4; Tr.1 at 25-26. The 2015 review did not include any review of the aerospace CTG. Tr.1 at 26.

IEPA argues that these methods have been used for decades and that no potentially affected source would be likely to have to change or replace coating delivery equipment to comply with the proposal. TSD at 8. IEPA adds that the potentially affected sources now use this equipment and that it "will be in use at the source planning an expansion." *Id*.; *see* Davis Test. at 2.

Add-On Control Systems

Controlling VOM emissions from aerospace facilities can also be achieved by using add-on emission control systems such as carbon adsorption systems and incinerators or oxidizers. TSD at 6, 8. IEPA set the overall capture and control efficiency requirement at 90% instead of the 81% suggested by the CTG. *Id*. at 8. IEPA argues that the 90% level of control is more consistent with "the control efficiencies of modern pollution control equipment." *Id*. IEPA concludes that the technical feasibility of this equipment "can be left to affected sources to consider," as it is an alternative to meeting the proposed requirements. *Id*. at 9.

Board Conclusion

IEPA reports that compliant coatings, equipment, and practices have been widely available and widely used for a number of years. The Board also notes Mr. Davis' testimony that IEPA's proposal is consistent with the CTG. Davis Test. at 1. He stated that "affected sources have been complying with limitations consistent with the guidelines" since they were adopted. *Id*. at 2. The record does not include testimony or comment disputing these positions. Based on its review of the record now before it, the Board concludes that its second-notice proposal is technically feasible.

Economic Reasonableness

Economic Impact Study

On October 15, 2020, the Board requested that DCEO conduct an economic impact study of IEPA's proposal. *See* 415 ILCS 5/27(b) (2018). The Board requested that DCEO determine by November 30, 2020, whether it would conduct a study. The Board received no response to this request. No participant at either hearing testified or commented on the Board's request or the lack of a response from DCEO. Tr.1 at 33; Tr.2 at 10-11.

Compliant Coatings

"[T]he most common cost-effective control option available for aerospace facilities is the use of coatings" that comply with the limits in the CTG and proposed rules and by using the work practices in the CTG and proposed rules. TSD at 6.

IEPA asserts that "[t]he aerospace industry has been using CTG-compliant coatings since 1998." TSD at 7; *see* SR at 7; Davis Test. at 2. IEPA adds that it is not aware of any non-compliance coatings on the market or in common use. *Id*. IEPA concludes that "it is unlikely that there will be additional costs to affected sources associated with the proposed coating limits." *Id*.

Work Practices

The CTG recommends materials and practices to limit VOM emissions. "[F]easible substitutions from high-VOM cleaning materials are aqueous, semi-aqueous, citrus-based, and low vapor pressure cleaning materials." TSD at 8. IEPA acknowledges that the "CTG does not provide cost estimates for cleaning product substitutions and methods." *Id*. However, IEPA

argues that "substitutes have been in use for many years and are easily available as the most commonly used cleaning products in the aerospace industry." *Id*.; *see* Davis Test. at 2.

Coating Delivery Equipment

IEPA also addresses coating delivery equipment, which can improve transfer efficiency and reduce VOM emissions. TSD at 7. IEPA identifies three possible equipment changes: HVLP spray guns, electrostatic spray guns, and conventional high transfer efficiency application methods such as dip coating, roll coating, brush coating, and low coating. *Id*. at 7, 8.

IEPA argues that these methods have been used for decades and that no potentially affected source would be likely to have to change or replace coating delivery equipment to comply with the proposal. TSD at 8. If a source upgraded to new equipment, the cost could be offset by "reduced coating consumption and reduced spray booth filter maintenance." *Id*. (citation omitted). IEPA adds that the potentially affected sources now use this equipment and that it "will be in use at the source planning an expansion." *Id*.; *see* Davis Test. at 2.

Add-On Control Systems

IEPA adds that controlling VOM emissions from aerospace facilities can also be achieved by using add-on emission control systems such as carbon adsorption systems and incinerators or oxidizers. TSD at 6, 8. IEPA stresses that it set the overall capture and control efficiency requirement at 90% instead of the 81% suggested by the CTG. *Id*. at 8. IEPA argues that the 90% level of control is more consistent with recent Illinois VOM rules "and with the control efficiencies of modern pollution control equipment." *Id*.

IEPA acknowledges that "[a]dd-on control systems may not be cost effective for smaller sources of emissions . . . but larger sources may find this option more cost-effective." TSD at 9. IEPA concludes that the economic reasonableness of this equipment "can be left to affected sources to consider," as it is an alternative to meeting the proposed requirements. *Id*.

The Board asked IEPA to comment on how it would classify sources as smaller or larger and to indicate whether it considers the potentially affected sources to be small or large for the purpose of this cost-effectiveness. Board Questions at 4. IEPA responded that it did not base its statement on a specific size threshold. Tr.1 at 27. It added that the TSD meant only "that a significant capital outlay for installing and operating controls would be less likely for smaller sources to employ," especially when compliant coatings are widely available. *Id*.

Board Conclusion

IEPA reports that complaint coatings, work practices, and equipment are widely available and have been in wide use for many years. The Board again notes Mr. Davis' testimony that IEPA's proposal is consistent with the CTG. Davis Test. at 1. He stated that "affected sources have been complying with limitations consistent with the guidelines" since they were adopted. *Id*. at 2. The Board does not consider it likely that affected sources will incur significant additional costs to comply with the proposed requirements. The record does not include

testimony or comment disputing these positions. Based on its review of the record now before it, the Board concludes that its second-notice proposal is economically reasonable and will not have an adverse economic impact on the people of the State of Illinois. *See* 415 ILCS 5/27(b)(2) (2018).

Section 110(l) Demonstration

Section 110(l) of the CAA provides that

> [e]ach revision to an implementation plan submitted by a State under this Act shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in CAA Section 171), or any other applicable requirement of this Act. TSD at 13, citing 42 USC § 7410(l).

In the absence of aerospace rules, industry sources in the Metro-East area have had to comply with other coating rules in Part 219. TSD at 13. For particular coating types, VOM content limits of these rules differ from limits in IEPA's proposal. *Id*. However, aircraft exterior coatings account for the great majority of VOM emissions from the potentially affected sources, and those coatings are exempt from the current regulations. *Id*. Consequently, "the proposed limits will reduce the potential to emit at the potentially affected sources in Illinois." *Id*.

IEPA evaluated the two potentially affected sources now subject to coating rules. In one case, more than 91.9 percent of coatings applied by volume (6,080 of 6,618 gallons) "were exempt from the miscellaneous metal parts coating limits because they were being applied to aircraft exteriors. This accounted for 95.9 percent of the VOM emissions from coatings applied at the facility (25.05 of 26.12 TPY)." TSD at 13. For these coatings, allowable VOM content for estimating the source's PTE is 8.24 lb/gal. Under IEPA's proposal, these coatings will be subject to primer and topcoat limits ranging from 2.9 to 5.4 lb/gal under proposed Section 219.204(r)(1). *Id*.

While the permit for the other potentially affected source is not as specific in its calculations of PTE for VOM, IEPA confirms that more than 90% of the coatings applied there are applied to aircraft exteriors, and that those coatings account for more than 90% of emissions at the source. TSD at 13. Adopting the proposed limits for those coatings will result in reducing the PTE for VOM significantly at the source. *Id*.

CONCLUSION

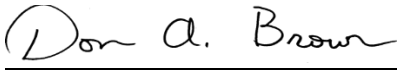
For the reasons above, the Board concludes to amend Parts 211 and 219 of its air pollution regulations. The proposed amendments address VOM emissions from aerospace operations located in the Metro East counties of Madison, Monroe, and St. Clair. The Board finds that the proposed rules are technically feasible and economically reasonable and will not have an adverse economic impact on the people of the State of Illinois. The Board submits the proposal to JCAR for second-notice review.

ORDER

The Board directs its Clerk to submit the second-notice proposal to JCAR for its review.

IT IS SO ORDERED.

I, Don A. Brown, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on January 21, 2021, by a vote of 4-0.



Don A. Brown, Clerk
Illinois Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 211
DEFINITIONS AND GENERAL PROVISIONS

SUBPART A: GENERAL PROVISIONS

Section
211.101 Incorporated and Referenced Materials
211.102 Abbreviations and Conversion Factors

SUBPART B: DEFINITIONS

Section
211.121 Other Definitions
211.122 Definitions (Repealed)
211.125 Ablative Coating
211.130 Accelacota
211.150 Accumulator
211.170 Acid Gases
211.200 Acrylonitrile Butadiene Styrene (ABS) Welding
211.210 Actual Heat Input
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211.233 Adhesion Primer
211.234 Adhesive Bonding Primer
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211.310 Air Contaminant
211.330 Air Dried Coatings
211.350 Air Oxidation Process
211.370 Air Pollutant
211.390 Air Pollution
211.410 Air Pollution Control Equipment
211.430 Air Suspension Coater/Dryer
211.450 Airless Spray
211.470 Air Assisted Airless Spray
211.474 Alcohol
211.479 Allowance
211.481 Ammunition Sealant
211.484 Animal
211.485 Animal Pathological Waste
211.490 Annual Grain Through-Put
211.491 Antichafe Coating
211.492 Antifoulant Coating
211.493 Antifouling Sealer/Tie Coat
211.495 Anti-Glare/Safety Coating
211.500 Antique Aerospace Vehicle or Component
211.510 Application Area
211.520 Aqueous Cleaning Solvent
211.530 Architectural Coating
211.540 Architectural Structure
211.550 As Applied
211.560 As-Applied Fountain Solution
211.570 Asphalt
211.590 Asphalt Prime Coat
211.610 Automobile
211.630 Automobile or Light-Duty Truck Assembly Source or Automobile or Light-Duty Truck Manufacturing Plant
211.650 Automobile or Light-Duty Truck Refinishing
211.660 Automotive/Transportation Plastic Parts
211.665 Auxiliary Boiler
211.670 Baked Coatings
211.680 Bakery Oven
211.685 Basecoat/Clearcoat System
211.690 Batch Loading
211.695 Batch Operation
211.696 Batch Process Train
211.710 Bead-Dipping
211.712 Bearing Coating
211.715 Bedliner
211.730 Binders
211.735 Black Coating
211.737 Bonding Maskant

211.740 Brakehorsepower (rated-bhp)
211.750 British Thermal Unit
211.770 Brush or Wipe Coating
211.790 Bulk Gasoline Plant
211.810 Bulk Gasoline Terminal
211.820 Business Machine Plastic Parts
211.825 Camouflage Coating
211.830 Can
211.850 Can Coating
211.870 Can Coating Line
211.880 Cap Sealant
211.890 Capture
211.910 Capture Device
211.930 Capture Efficiency
211.950 Capture System
211.953 Carbon Adsorber
211.954 Cavity Wax
211.955 Cement
211.960 Cement Kiln
211.965 Ceramic Tile Installation Adhesive
211.970 Certified Investigation
211.975 Chemical Agent-Resistant Coating
211.980 Chemical Manufacturing Process Unit
211.985 Chemical Milling Maskant
211.990 Choke Loading
211.995 Circulating Fluidized Bed Combustor
211.1000 Class II Finish
211.1010 Clean Air Act
211.1050 Cleaning and Separating Operation
211.1070 Cleaning Materials
211.1090 Clear Coating
211.1095 Clear Coating for Aerospace Applications
211.1110 Clear Topcoat
211.1120 Clinker
211.1128 Closed Molding
211.1130 Closed Purge System
211.1150 Closed Vent System
211.1170 Coal Refuse
211.1190 Coating
211.1210 Coating Applicator
211.1230 Coating Line
211.1250 Coating Plant
211.1270 Coil Coating
211.1290 Coil Coating Line
211.1310 Cold Cleaning
211.1312 Combined Cycle System

211.1315 Combustion Tuning
211.1316 Combustion Turbine
211.1320 Commence Commercial Operation
211.1324 Commence Operation
211.1326 Commercial Exterior Aerodynamic Structure Primer
211.1327 Commercial Interior Adhesive
211.1328 Common Stack
211.1329 Compatible Substrate Primer
211.1330 Complete Combustion
211.1350 Component
211.1370 Concrete Curing Compounds
211.1390 Concentrated Nitric Acid Manufacturing Process
211.1410 Condensate
211.1430 Condensible PM-10
211.1432 Confined Space
211.1435 Container Glass
211.1455 Contact Adhesive
211.1465 Continuous Automatic Stoking
211.1467 Continuous Coater
211.1470 Continuous Process
211.1490 Control Device
211.1510 Control Device Efficiency
211.1515 Control Period
211.1520 Conventional Air Spray
211.1530 Conventional Soybean Crushing Source
211.1550 Conveyorized Degreasing
211.1555 Corrosion Prevention System
211.1560 Cove Base
211.1565 Cove Base Installation Adhesive
211.1567 Critical Use and Line Sealer Maskant
211.1570 Crude Oil
211.1590 Crude Oil Gathering
211.1610 Crushing
211.1620 Cryogenic Flexible Primer
211.1625 Cryoprotective Coating
211.1630 Custody Transfer
211.1650 Cutback Asphalt
211.1655 Cyanoacrylate Adhesive
211.1670 Daily-Weighted Average VOM Content
211.1690 Day
211.1700 Deadener
211.1710 Degreaser
211.1730 Delivery Vessel
211.1735 Department of Defense Classified Coating
211.1740 Diesel Engine
211.1745 Digital Printing

211.1750 Dip Coating
211.1770 Distillate Fuel Oil
211.1780 Distillation Unit
211.1790 Drum
211.1810 Dry Cleaning Operation or Dry Cleaning Facility
211.1820 Dry Lubricative Material for Aerospace Applications
211.1830 Dump-Pit Area
211.1850 Effective Grate Area
211.1870 Effluent Water Separator
211.1872 Ejection Cartridge Sealant
211.1875 Elastomeric Materials
211.1876 Electric Dissipating Coating
211.1877 Electric-Insulating Varnish
211.1878 Electrical Apparatus Component
211.1880 Electrical Switchgear Compartment Coating
211.1882 Electrodeposition Primer (EDP)
211.1883 Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Shielding Coatings
211.1885 Electronic Component
211.1890 Electrostatic Bell or Disc Spray
211.1895 Electrostatic Discharge and Electromagnetic Interference Coating
211.1900 Electrostatic Prep Coat
211.1910 Electrostatic Spray
211.1915 Elevated-Temperature Skydrol-Resistant Commercial Primer
211.1920 Emergency or Standby Unit
211.1930 Emission Rate
211.1950 Emission Unit
211.1970 Enamel
211.1990 Enclose
211.2010 End Sealing Compound Coat
211.2030 Enhanced Under-the-Cup Fill
211.2035 Epoxy Polyamide Topcoat
211.2040 Etching Filler
211.2050 Ethanol Blend Gasoline
211.2055 Ethylene Propylenediene Monomer (DPDM) Roof Membrane
211.2070 Excess Air
211.2080 Excess Emissions
211.2090 Excessive Release
211.2110 Existing Grain-Drying Operation (Repealed)
211.2130 Existing Grain-Handling Operation (Repealed)
211.2150 Exterior Base Coat
211.2170 Exterior End Coat
211.2180 Exterior Primer for Large Commercial Aircraft
211.2190 External Floating Roof
211.2200 Extreme High-Gloss Coating
211.2210 Extreme Performance Coating

211.2230 Fabric Coating
211.2250 Fabric Coating Line
211.2270 Federally Enforceable Limitations and Conditions
211.2285 Feed Mill
211.2290 Fermentation Time
211.2300 Fill
211.2310 Final Repair Coat
211.2320 Finish Primer Surfacer
211.2330 Firebox
211.2340 Fire-Resistant Interior Coating
211.2350 Fixed-Roof Tank
211.2355 Flare
211.2357 Flat Glass
211.2358 Flat Wood Paneling
211.2359 Flat Wood Paneling Coating Line
211.2360 Flexible Coating
211.2365 Flexible Operation Unit
211.2368 Flexible Packaging
211.2369 Flexible Vinyl
211.2370 Flexographic Printing
211.2390 Flexographic Printing Line
211.2400 Flight Test Coating
211.2410 Floating Roof
211.2412 Flush Cleaning at Aerospace Facilities
211.2415 Fog Coat
211.2420 Fossil Fuel
211.2425 Fossil Fuel-Fired
211.2430 Fountain Solution
211.2450 Freeboard Height
211.2470 Fuel Combustion Emission Unit or Fuel Combustion Emission Source
211.2480 Fuel Tank Adhesive for Aerospace Applications
211.2485 Fuel Tank Coating for Aerospace Applications
211.2490 Fugitive Particulate Matter
211.2510 Full Operating Flowrate
211.2525 Gasket/Gasket Sealing Material
211.2530 Gas Service
211.2550 Gas/Gas Method
211.2570 Gasoline
211.2590 Gasoline Dispensing Operation or Gasoline Dispensing Facility
211.2610 Gel Coat
211.2612 General Aviation
211.2613 General Aviation Rework Facility
211.2615 General Work Surface
211.2620 Generator
211.2622 Glass Bonding Primer
211.2625 Glass Melting Furnace

211.2630 Gloss Reducers
211.2650 Grain
211.2670 Grain-Drying Operation
211.2690 Grain-Handling and Conditioning Operation
211.2710 Grain-Handling Operation
211.2730 Green-Tire Spraying
211.2750 Green Tires
211.2770 Gross Heating Value
211.2790 Gross Vehicle Weight Rating
211.2795 Hand-Wipe Cleaning Operation at Aerospace Facilities
211.2800 Hardwood Plywood
211.2810 Heated Airless Spray
211.2815 Heat Input
211.2820 Heat Input Rate
211.2825 Heat-Resistant Coating
211.2830 Heatset
211.2840 Heatset Web Letterpress Printing Line
211.2850 Heatset Web Offset Lithographic Printing Line
211.2870 Heavy Liquid
211.2890 Heavy Metals
211.2910 Heavy Off-Highway Vehicle Products
211.2930 Heavy Off-Highway Vehicle Products Coating
211.2950 Heavy Off-Highway Vehicle Products Coating Line
211.2955 High Bake Coating
211.2956 High Build Primer Surfacer
211.2958 High Gloss Coating
211.2960 High-Performance Architectural Coating
211.2965 High Precision Optic
211.2970 High Temperature Aluminum Coating
211.2980 High Temperature Coating
211.2990 High Volume Low Pressure (HVLP) Spray
211.3010 Hood
211.3030 Hot Well
211.3050 Housekeeping Practices
211.3070 Incinerator
211.3090 Indirect Heat Transfer
211.3095 Indoor Floor Covering Installation Adhesive
211.3100 Industrial Boiler
211.3110 Ink
211.3120 In-Line Repair
211.3130 In-Process Tank
211.3150 In-Situ Sampling Systems
211.3160 Insulation Covering
211.3170 Interior Body Spray Coat
211.3180 Intermediate Release Coating
211.3190 Internal-Floating Roof

211.3210 Internal Transferring Area
211.3215 Janitorial Cleaning
211.3230 Lacquers
211.3240 Laminate
211.3250 Large Appliance
211.3270 Large Appliance Coating
211.3290 Large Appliance Coating Line
211.3300 Lean-Burn Engine
211.3305 Letterpress Printing Line
211.3310 Light Liquid
211.3330 Light-Duty Truck
211.3350 Light Oil
211.3355 Lime Kiln
211.3360 Limited Access Space
211.3370 Liquid/Gas Method
211.3390 Liquid-Mounted Seal
211.3410 Liquid Service
211.3430 Liquids Dripping
211.3450 Lithographic Printing Line
211.3470 Load-Out Area
211.3475 Load Shaving Unit
211.3480 Loading Event
211.3483 Long Dry Kiln
211.3485 Long Wet Kiln
211.3487 Low-NO_x Burner
211.3490 Low Solvent Coating
211.3500 Lubricating Oil
211.3505 Lubricating Wax/Compound
211.3510 Magnet Wire
211.3530 Magnet Wire Coating
211.3550 Magnet Wire Coating Line
211.3555 Maintenance Cleaning
211.3570 Major Dump Pit
211.3590 Major Metropolitan Area (MMA)
211.3610 Major Population Area (MPA)
211.3620 Manually Operated Equipment
211.3630 Manufacturing Process
211.3650 Marine Terminal
211.3660 Marine Vessel
211.3665 Mask Coating
211.3670 Material Recovery Section
211.3690 Maximum Theoretical Emissions
211.3695 Maximum True Vapor Pressure
211.3705 Medical Device
211.3707 Medical Device and Pharmaceutical Manufacturing
211.3710 Metal Furniture

211.3730 Metal Furniture Coating
211.3750 Metal Furniture Coating Line
211.3755 Metalized Epoxy Coating
211.3760 Metallic Coating
211.3770 Metallic Shoe-Type Seal
211.3775 Metal to Urethane/Rubber Molding or Casting Adhesive
211.3780 Mid-Kiln Firing
211.3785 Military Specification Coating
211.3790 Miscellaneous Fabricated Product Manufacturing Process
211.3810 Miscellaneous Formulation Manufacturing Process
211.3820 Miscellaneous Industrial Adhesive Application Operation
211.3830 Miscellaneous Metal Parts and Products
211.3850 Miscellaneous Metal Parts and Products Coating
211.3870 Miscellaneous Metal Parts or Products Coating Line
211.3890 Miscellaneous Organic Chemical Manufacturing Process
211.3910 Mixing Operation
211.3915 Mobile Equipment
211.3920 Mold Release Coating for Aerospace Applications
211.3925 Mold Seal Coating
211.3930 Monitor
211.3950 Monomer
211.3960 Motor Vehicles
211.3961 Motor Vehicle Adhesive
211.3965 Motor Vehicle Refinishing
211.3966 Motor Vehicle Weatherstrip Adhesive
211.3967 Mouth Waterproofing Sealant
211.3968 Multi-Colored Coating
211.3969 Multi-Component Coating
211.3970 Multiple Package Coating
211.3975 Multipurpose Construction Adhesive
211.3980 Nameplate Capacity
211.3985 Natural Finish Hardwood Plywood Panel
211.3990 New Grain-Drying Operation (Repealed)
211.4010 New Grain-Handling Operation (Repealed)
211.4030 No Detectable Volatile Organic Material Emissions
211.4050 Non-Contact Process Water Cooling Tower
211.4052 Non-Convertible Coating
211.4055 Non-Flexible Coating
211.4065 Non-Heatset
211.4066 Nonstructural Adhesive
211.4067 NO_x Trading Program
211.4070 Offset
211.4080 One-Component Coating
211.4090 One Hundred Percent Acid
211.4110 One-Turn Storage Space
211.4130 Opacity

211.4150 Opaque Stains
211.4170 Open Top Vapor Degreasing
211.4190 Open-Ended Valve
211.4210 Operator of a Gasoline Dispensing Operation or Operator of a Gasoline Dispensing Facility
211.4215 Optical Antireflection Coating
211.4220 Optical Coating
211.4230 Organic Compound
211.4250 Organic Material and Organic Materials
211.4260 Organic Solvent
211.4270 Organic Vapor
211.4280 Other Glass
211.4285 Outdoor Floor Covering Installation Adhesive
211.4290 Oven
211.4310 Overall Control
211.4330 Overvarnish
211.4350 Owner of a Gasoline Dispensing Operation or Owner of a Gasoline Dispensing Facility
211.4370 Owner or Operator
211.4390 Packaging Rotogravure Printing
211.4410 Packaging Rotogravure Printing Line
211.4430 Pail
211.4450 Paint Manufacturing Source or Paint Manufacturing Plant
211.4455 Pan-Backing Coating
211.4460 Panel
211.4470 Paper Coating
211.4490 Paper Coating Line
211.4510 Particulate Matter
211.4530 Parts Per Million (Volume) or PPM (Vol)
211.4535 Part Marking Aerospace Coating
211.4540 Perimeter Bonded Sheet Flooring
211.4550 Person
211.4590 Petroleum
211.4610 Petroleum Liquid
211.4630 Petroleum Refinery
211.4650 Pharmaceutical
211.4670 Pharmaceutical Coating Operation
211.4690 Photochemically Reactive Material
211.4710 Pigmented Coatings
211.4720 Pipeline Natural Gas
211.4730 Plant
211.4735 Plastic
211.4740 Plastic Part
211.4750 Plasticizers
211.4760 Plastic Solvent Welding Adhesive
211.4765 Plastic Solvent Welding Adhesive Primer

211.4768 Pleasure Craft
211.4769 Pleasure Craft Surface Coating
211.4770 PM-10
211.4790 Pneumatic Rubber Tire Manufacture
211.4810 Polybasic Organic Acid Partial Oxidation Manufacturing Process
211.4830 Polyester Resin Material(s)
211.4850 Polyester Resin Products Manufacturing Process
211.4870 Polystyrene Plant
211.4890 Polystyrene Resin
211.4895 Polyvinyl Chloride Plastic (PVC Plastic)
211.4900 Porous Material
211.4910 Portable Grain-Handling Equipment
211.4930 Portland Cement Manufacturing Process Emission Source
211.4950 Portland Cement Process or Portland Cement Manufacturing Plant
211.4960 Potential Electrical Output Capacity
211.4970 Potential to Emit
211.4990 Power Driven Fastener Coating
211.5010 Precoat
211.5012 Prefabricated Architectural Coating
211.5015 Preheater Kiln
211.5020 Preheater/Precalciner Kiln
211.5030 Pressure Release
211.5050 Pressure Tank
211.5060 Pressure/Vacuum Relief Valve
211.5061 Pretreatment Coating
211.5062 Pretreatment Wash Primer
211.5065 Primary Product
211.5070 Prime Coat
211.5072 Primer for General Aviation Rework Facility
211.5075 Primer Sealant
211.5080 Primer Sealer
211.5090 Primer Surfacer Coat
211.5110 Primer Surfacer Operation
211.5130 Primers
211.5140 Printed Interior Panel
211.5150 Printing
211.5170 Printing Line
211.5185 Process Emission Source
211.5190 Process Emission Unit
211.5195 Process Heater
211.5210 Process Unit
211.5230 Process Unit Shutdown
211.5245 Process Vent
211.5250 Process Weight Rate
211.5270 Production Equipment Exhaust System
211.5310 Publication Rotogravure Printing Line

211.5330 Purged Process Fluid
211.5335 Radiation Effect Coating
211.5336 Radiation-Effect or Electric Coating
211.5338 Radome
211.5339 Rain Erosion-Resistant Coating
211.5340 Rated Heat Input Capacity
211.5350 Reactor
211.5370 Reasonably Available Control Technology (RACT)
211.5390 Reclamation System
211.5400 Red Coating
211.5410 Refiner
211.5430 Refinery Fuel Gas
211.5450 Refinery Fuel Gas System
211.5470 Refinery Unit or Refinery Process Unit
211.5480 Reflective Argent Coating
211.5490 Refrigerated Condenser
211.5500 Regulated Air Pollutant
211.5510 Reid Vapor Pressure
211.5520 Reinforced Plastic Composite
211.5530 Repair
211.5535 Repair Cleaning
211.5550 Repair Coat
211.5570 Repaired
211.5580 Repowering
211.5585 Research and Development Operation
211.5590 Residual Fuel Oil
211.5600 Resist Coat
211.5610 Restricted Area
211.5630 Retail Outlet
211.5640 Rich-Burn Engine
211.5650 Ringelmann Chart
211.5670 Roadway
211.5675 Rocket Motor Bonding Adhesive
211.5680 Rocket Motor Nozzle Coating
211.5690 Roll Coater
211.5710 Roll Coating
211.5730 Roll Printer
211.5750 Roll Printing
211.5770 Rotogravure Printing
211.5790 Rotogravure Printing Line
211.5800 Rubber
211.5805 Rubber-Based Adhesive
211.5810 Safety Relief Valve
211.5830 Sandblasting
211.5850 Sanding Sealers
211.5855 Scale Inhibitor

211.5860 Scientific Instrument
211.5870 Screening
211.5875 Screen Printing
211.5880 Screen Printing on Paper
211.5883 Screen Print Ink for Aerospace Applications
211.5885 Screen Reclamation
211.5887 Sealant for Aerospace Applications
211.5890 Sealer
211.5895 Seal Coat Maskant
211.5900 Self-Priming Topcoat for Aerospace Applications
211.5905 Self-Priming Topcoat for General Aviation Rework Facility
211.5907 Semi-Aqueous Cleaning Solvent
211.5910 Semi-Transparent Stains
211.5930 Sensor
211.5950 Set of Safety Relief Valves
211.5970 Sheet Basecoat
211.5980 Sheet-Fed
211.5985 Sheet Rubber Lining Installation
211.5987 Shock-Free Coating
211.5990 Shotblasting
211.6010 Side-Seam Spray Coat
211.6012 Silicone-Release Coating
211.6013 Silicone Insulation Material
211.6015 Single-Ply Roof Membrane
211.6017 Single-Ply Roof Membrane Adhesive Primer
211.6020 Single-Ply Roof Membrane Installation and Repair Adhesive
211.6025 Single Unit Operation
211.6030 Smoke
211.6050 Smokeless Flare
211.6055 Smoothing and Caulking Compounds
211.6060 Soft Coat
211.6063 Solar-Absorbent Coating
211.6064 Solid Film Lubricant
211.6065 Solids Turnover Ratio (R_T)
211.6070 Solvent
211.6090 Solvent Cleaning
211.6110 Solvent Recovery System
211.6130 Source
211.6133 Space Vehicle
211.6137 Specialized Function Coating
211.6140 Specialty Coatings
211.6145 Specialty Coatings for Motor Vehicles
211.6150 Specialty High Gloss Catalyzed Coating
211.6170 Specialty Leather
211.6190 Specialty Soybean Crushing Source
211.6210 Splash Loading

211.6230 Stack
211.6250 Stain Coating
211.6270 Standard Conditions
211.6290 Standard Cubic Foot (scf)
211.6310 Start-Up
211.6330 Stationary Emission Source
211.6350 Stationary Emission Unit
211.6355 Stationary Gas Turbine
211.6360 Stationary Reciprocating Internal Combustion Engine
211.6370 Stationary Source
211.6390 Stationary Storage Tank
211.6400 Stencil Coat
211.6405 Sterilization Indicating Ink
211.6410 Storage Tank or Storage Vessel
211.6420 Strippable Spray Booth Coating
211.6425 Stripping
211.6426 Structural Autoclavable Adhesive for Aerospace Applications
211.6427 Structural Glazing
211.6428 Structural Nonautoclavable Adhesive for Aerospace Applications
211.6430 Styrene Devolatilizer Unit
211.6450 Styrene Recovery Unit
211.6460 Subfloor
211.6470 Submerged Loading Pipe
211.6490 Substrate
211.6510 Sulfuric Acid Mist
211.6530 Surface Condenser
211.6535 Surface Preparation
211.6540 Surface Preparation Materials
211.6550 Synthetic Organic Chemical or Polymer Manufacturing Plant
211.6570 Tablet Coating Operation
211.6575 Temporary Protective Coating for Aerospace Applications
211.6580 Texture Coat
211.6583 Thermal Control Coating for Aerospace Applications
211.6585 Thin Metal Laminating Adhesive
211.6587 Thin Particleboard
211.6590 Thirty-Day Rolling Average
211.6610 Three-Piece Can
211.6620 Three or Four Stage Coating System
211.6630 Through-the-Valve Fill
211.6635 Tileboard
211.6640 Tire Repair
211.6650 Tooling Resin
211.6670 Topcoat
211.6685 Topcoat for General Aviation Rework Facility
211.6690 Topcoat Operation
211.6695 Topcoat System

211.6710 Touch-Up
211.6720 Touch-Up Coating
211.6730 Transfer Efficiency
211.6740 Translucent Coating
211.6750 Tread End Cementing
211.6770 True Vapor Pressure
211.6780 Trunk Interior Coating
211.6790 Turnaround
211.6810 Two-Piece Can
211.6825 Underbody Coating
211.6830 Under-the-Cup Fill
211.6850 Undertread Cementing
211.6860 Uniform Finish Blender
211.6870 Unregulated Safety Relief Valve
211.6880 Vacuum Metallizing
211.6885 Vacuum Metalizing Coating
211.6890 Vacuum Producing System
211.6910 Vacuum Service
211.6930 Valves Not Externally Regulated
211.6950 Vapor Balance System
211.6970 Vapor Collection System
211.6990 Vapor Control System
211.7010 Vapor-Mounted Primary Seal
211.7030 Vapor Recovery System
211.7050 Vapor-Suppressed Polyester Resin
211.7070 Vinyl Coating
211.7090 Vinyl Coating Line
211.7110 Volatile Organic Liquid (VOL)
211.7130 Volatile Organic Material Content (VOMC)
211.7150 Volatile Organic Material (VOM) or Volatile Organic Compound (VOC)
211.7170 Volatile Petroleum Liquid
211.7190 Wash Coat
211.7200 Washoff Operations
211.7210 Wastewater (Oil/Water) Separator
211.7220 Waterproof Resorcinol Glue
211.7230 Weak Nitric Acid Manufacturing Process
211.7240 Weatherstrip Adhesive
211.7250 Web
211.7260 Wet Fastener Installation Coating
211.7275 Wing Coating
211.7270 Wholesale Purchase − Consumer
211.7290 Wood Furniture
211.7310 Wood Furniture Coating
211.7330 Wood Furniture Coating Line
211.7350 Woodworking
211.7400 Yeast Percentage

211.APPENDIX A Rule into Section Table
211.APPENDIX B Section into Rule Table

AUTHORITY: Implementing Sections 9, 9.1, 9.9 and 10 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/9, 9.1, 9.9, 10, and 27].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 201: Definitions, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5, p. 777, effective February 3, 1979; amended in R78-3 and 4, 35 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13590; amended in R82-1 (Docket A) at 10 Ill. Reg. 12624, effective July 7, 1986; amended in R85-21(A) at 11 Ill. Reg. 11747, effective June 29, 1987; amended in R86-34 at 11 Ill. Reg. 12267, effective July 10, 1987; amended in R86-39 at 11 Ill. Reg. 20804, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 787, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7284, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7621, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10862, effective June 27, 1989; amended in R89-8 at 13 Ill. Reg. 17457, effective January 1, 1990; amended in R89-16(A) at 14 Ill. Reg. 9141, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 5223, effective March 28, 1991; amended in R88-14 at 15 Ill. Reg. 7901, effective May 14, 1991; amended in R91-10 at 15 Ill. Reg. 15564, effective October 11, 1991; amended in R91-6 at 15 Ill. Reg. 15673, effective October 14, 1991; amended in R91-22 at 16 Ill. Reg. 7656, effective May 1, 1992; amended in R91-24 at 16 Ill. Reg. 13526, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16504, effective September 27, 1993; amended in R93-11 at 17 Ill. Reg. 21471, effective December 7, 1993; amended in R93-14 at 18 Ill. Reg. 1253, effective January 18, 1994; amended in R94-12 at 18 Ill. Reg. 14962, effective September 21, 1994; amended in R94-14 at 18 Ill. Reg. 15744, effective October 17, 1994; amended in R94-15 at 18 Ill. Reg. 16379, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16929, effective November 15, 1994; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6823, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7344, effective May 22, 1995; amended in R95-2 at 19 Ill. Reg. 11066, effective July 12, 1995; amended in R95-16 at 19 Ill. Reg. 15176, effective October 19, 1995; amended in R96-5 at 20 Ill. Reg. 7590, effective May 22, 1996; amended in R96-16 at 21 Ill. Reg. 2641, effective February 7, 1997; amended in R97-17 at 21 Ill. Reg. 6489, effective May 16, 1997; amended in R97-24 at 21 Ill. Reg. 7695, effective June 9, 1997; amended in R96-17 at 21 Ill. Reg. 7856, effective June 17, 1997; amended in R97-31 at 22 Ill. Reg. 3497, effective February 2, 1998; amended in R98-17 at 22 Ill. Reg. 11405, effective June 22, 1998; amended in R01-9 at 25 Ill. Reg. 108, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4582, effective March 15, 2001; amended in R01-17 at 25 Ill. Reg. 5900, effective April 17, 2001; amended in R05-16 at 29 Ill. Reg. 8181, effective May 23, 2005; amended in R05-11 at 29 Ill. Reg. 8892, effective June 13, 2005; amended in R04-12/20 at 30 Ill. Reg. 9654, effective May 15, 2006; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R08-6 at 32 Ill. Reg. 1387, effective January 16, 2008; amended in R07-19 at 33 Ill. Reg. 11982, effective August 6, 2009; amended in R08-19 at 33 Ill. Reg. 13326, effective August 31, 2009; amended in R10-7 at 34 Ill. Reg. 1391, effective January 11, 2010; amended in R10-8 at 34 Ill. Reg. 9069, effective June 25, 2010; amended in R10-20 at 34 Ill. Reg. 14119, effective September 14, 2010; amended in R11-23 at

35 Ill. Reg. 13451, effective July 27, 2011; amended in R12-24 at 37 Ill. Reg. 1662, effective January 28, 2013; amended in R13-1 at 37 Ill. Reg. 1913, effective February 4, 2013; amended in R14-7 at 37 Ill. Reg. 19824, effective November 27, 2013; amended in R14-16 at 38 Ill. Reg. 12876, effective June 9, 2014; amended in R15-5 at 39 Ill. Reg. 5410, effective March 24, 2015; amended in R17-2 at 41 Ill. Reg. 1096, effective January 23, 2017; amended in R17-9 at 41 Ill. Reg. 4173, effective March 24, 2017; amended in R17-11 at 41 Ill. Reg. 13389, effective October 23, 2017; amended in R19-15 at 44 Ill. Reg. 14199, effective August 18, 2020; amended in R19-1 at 44 Ill. Reg. 15009, effective September 4, 2020; amended in R21-18 at 45 Ill. Reg._____, effective_____.

SUBPART B: DEFINITIONS

Section 211.125 Ablative Coating

"Ablative coating" means a coating that chars when exposed to open flame or extreme temperatures, as would occur during the failure of an engine casing or during aerodynamic heating. The ablative char surface serves as an insulative barrier, protecting adjacent components from the heat or open flame.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.234 Adhesive Bonding Primer

"Adhesive bonding primer" means a primer applied in a thin film to aerospace components for the purpose of corrosion inhibition and increased adhesive bond strength by attachment. There are two categories of adhesive bonding primers: primers with a design cure at 250 °F~~250°F~~ or below and primers with a design cure above 250 °F~~250°F~~.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.245 Adhesion Promoter for Aerospace Applications

"Adhesion promoter for aerospace applications" means a very thin coating applied to a substrate to promote wetting and form a chemical bond with the subsequently applied material.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.271 Aerosol Coating

"Aerosol coating" means a hand-held, pressurized, nonrefillable container that expels an adhesive or a coating in a finely divided spray when a valve on the container is depressed.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.272 Aerospace Coating

"Aerospace coating" means a material that is applied to the surface of an aerospace vehicle or component to form a decorative, protective, or functional solid film, or the solid film itself.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.273 Aerospace Coating Operation

"Aerospace coating operation" means using a spray booth, tank, or other enclosure or any area, such as a hangar, for applying a single type of aerospace coating at an aerospace facility. Using the same spray booth for applying another type of coating (e.g., a topcoat after having previously applied a primer) constitutes a separate aerospace coating operation for which compliance determinations are performed separately.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.275 Aerospace Flexible Primer

"Aerospace flexible primer" means a primer for aerospace use that meets flexibility requirements such as those needed for adhesive bond-primed fastener heads or on surfaces expected to contain fuel. The aerospace flexible coating is required because it provides a compatible, flexible substrate over bonded sheet rubber and rubber-type coatings as well as a flexible bridge between the fasteners, skin, and skin-to-skin joints on outer aircraft skins. This flexible bridge allows more topcoat flexibility around fasteners and decreases the chance of the topcoat cracking around the fasteners. The result is better corrosion resistance.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.277 Aerospace Facility

"Aerospace facility" means any facility that produces, reworks, or repairs any commercial, civil, or military aerospace vehicle or component.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.278 Aerospace Pretreatment Coating

"Aerospace pretreatment coating" means an organic coating that contains at least 0.5 percent acids by weight and is applied directly to metal or composite surfaces to provide surface etching, corrosion resistance, adhesion, and ease of stripping.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.280 Aerospace Primer

"Aerospace primer" means the first layer and any subsequent layers of identically formulated coating applied to the surface of an aerospace vehicle or component. Primers are typically used for corrosion prevention, protection from the environment, functional fluid resistance, and

adhesion of subsequent coatings. Primers that are listed as specialty coatings in 35 Ill. Adm. Code 219.204(r)(2) are not included under this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.284 Aerospace Specialty Coating

"Aerospace specialty coating" means a coating that, even though it meets the definition of a primer, topcoat, or self-priming topcoat, has additional performance criteria beyond those of primers, topcoats, and self-priming topcoats for specific applications. These performance criteria may include, but are not limited to, temperature or fire resistance, substrate compatibility, antireflection, temporary protection or marking, sealing, adhesively joining substrates, or enhanced corrosion protection. Aerospace specialty coatings are listed in 35 Ill. Adm. Code 219.204(r)(2).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.289 Aerospace Vehicle or Component

"Aerospace vehicle or component" means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft, including airplanes, helicopters, missiles, rockets, and space vehicles. This term includes any raw material, partial or completed fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle, including mockups and prototypes, models, molds, jigs, tooling, hardware jackets, and test coupons.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.300 Aircraft Fluid Systems

"Aircraft fluid systems" means those systems that handle hydraulic fluids, fuel, cooling fluids, or oils.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.303 Aircraft Transparencies

"Aircraft transparencies" means the aircraft windshield, canopy, passenger windows, lenses and other components that are constructed of transparent materials.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.491 Antichafe Coating

"Antichafe coating" means a coating applied to areas of moving aerospace components that may rub during normal operations or installation.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.500 Antique Aerospace Vehicle or Component

"Antique aerospace vehicle or component" means an aircraft or a component of an aircraft that is at least 30 years old and is not routinely in commercial or military service in the capacity for which it was designed.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.520 Aqueous Cleaning Solvent

"Aqueous cleaning solvent" means a cleaning solvent in which water is the primary ingredient (at least 80 percent of the cleaning solvent solution, as applied, must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water, along with a variety of additives, such as organic solvents (e.g., high boiling point alcohols), builders, saponifiers, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200 °F)~~93°C (200°F)~~ (as reported by the manufacturer), and the solution must be miscible with water.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.712 Bearing Coating

"Bearing coating" means a coating applied to an antifriction bearing, a bearing housing, or the area adjacent to such a bearing in order to facilitate bearing function or to protect base material from excessive wear. A material shall not be classified as a bearing coating if it can also be classified as a dry lubricative material or a solid film lubricant.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.737 Bonding Maskant

"Bonding maskant" means a temporary coating used to protect selected areas of aerospace parts from strong acid or alkaline solutions during processing for bonding.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.975 Chemical Agent-Resistant Coating

"Chemical agent-resistant coating" means an exterior topcoat designed to withstand exposure to chemical warfare agents or the decontaminants used on these agents.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.985 Chemical Milling Maskant

"Chemical milling maskant" means a coating that is applied directly to aluminum components to protect surface areas when chemical milling the component with a Type I or II etchant. Type I chemical milling maskants are used with a Type I etchant and Type II chemical milling maskants are used with a Type II etchant. This definition does not include:

bonding maskants;

critical use and line sealer maskants;

seal coat maskants;

maskants that must be used with a combination of Type I or II etchants and any of these maskants (i.e., bonding, critical use and line sealer, and seal coat); or

maskants that are listed as aerospace specialty coatings in 35 Ill. Adm. Code 219.204(r)(2).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1095 Clear Coating for Aerospace Applications

"Clear coating for aerospace applications" means a transparent coating usually applied over a colored opaque coating, metallic substrate, or placard to give improved gloss and protection to the color coat. In some cases, a clearcoat refers to any transparent coating without regard to substrate.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1326 Commercial Exterior Aerodynamic Structure Primer

"Commercial exterior aerodynamic structure primer" means a primer used on aerodynamic components and structures that protrude from the fuselage, such as wings and attached components, control surfaces, horizontal stabilizers, vertical fins, wing-to-body fairings, antennae, and landing gear and doors, for the purpose of extended corrosion protection and enhanced adhesion.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1327 Commercial Interior Adhesive

"Commercial interior adhesive" means materials used in the bonding of passenger cabin interior components. These components must meet the Federal Aviation Administration fireworthiness requirements.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1329 Compatible Substrate Primer

"Compatible substrate primer" means either compatible epoxy primer or adhesive primer. Compatible epoxy primer is primer that is compatible with the filled elastomeric coating and is epoxy-based. The compatible substrate primer is an epoxypolyamide primer used to promote adhesion of elastomeric coatings such as impact-resistant coatings. Adhesive primer is a coating that:

inhibits corrosion and serves as a primer applied to bare metal surfaces or prior to adhesive application; or

is applied to surfaces that can be expected to contain fuel.

Fuel tank coatings are excluded from this category.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1432 Confined Space

"Confined space" means a space that is large enough and so configured that an employee can bodily enter and perform assigned work; has limited or restricted means for entry or exit (for example, fuel tanks, fuel vessels, and other spaces that have limited means of entry); and is not suitable for continuous employee occupancy.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1555 Corrosion Prevention System

"Corrosion prevention system" means a coating system that provides corrosion protection by displacing water and penetrating mating surfaces, forming a protective barrier between the metal surface and moisture. Coatings containing oils or waxes are excluded from this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1567 Critical Use and Line Sealer Maskant

"Critical use and line sealer maskant" means a temporary coating, not covered under other maskant categories, used to protect selected areas of aerospace parts from:

strong acid or alkaline solutions such as those used in anodizing, plating, chemical milling, and processing of magnesium, titanium, or high strength steel;

high-precision aluminum chemical milling of deep cuts; and

aluminum chemical milling of complex shapes.

Materials used for repairs or to bridge gaps left by scribing operations (i.e., line sealer) are also included in this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1620 Cryogenic Flexible Primer

"Cryogenic flexible primer" means a primer designed to provide corrosion resistance, flexibility, and adhesion of subsequent coating systems when exposed to loads up to and surpassing the yield point of the substrate at cryogenic temperatures (-275 °F ~~-275°F~~ and below).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1625 Cryoprotective Coating

"Cryoprotective coating" means a coating that insulates cryogenic or subcooled surfaces to limit propellant boil-off, maintain structural integrity of metallic structures during ascent or re-entry, and prevent ice formation.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1735 Department of Defense Classified Coating

"Department of Defense classified coating" means a coating that has been determined pursuant to federal Executive Order 13526, "Classified National Security Information," December 29, 2009, or any successor order to require protection against unauthorized disclosure and is marked to indicate its classified status when in documentary form.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1820 Dry Lubricative Material for Aerospace Applications

"Dry lubricative material for aerospace applications" means a coating consisting of lauric acid, cetyl alcohol, waxes, or other noncrosslinked or resin-bound materials that act as a dry lubricant.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1895 Electrostatic Discharge and Electromagnetic Interference Coating

"Electrostatic discharge and electromagnetic interference coating" means a coating applied to space vehicles, missiles, aircraft radomes, and helicopter blades to disperse static energy or reduce electromagnetic interference.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.1915 Elevated-Temperature Skydrol-Resistant Commercial Primer

"Elevated-temperature Skydrol-resistant commercial primer" means a primer applied primarily to commercial aircraft (or commercial aircraft adapted for military use) that must withstand immersion in phosphate-ester hydraulic fluid (Skydrol 500b or equivalent) at 150 °F~~150°F~~ or higher for at least 1,000 hours.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2035 Epoxy Polyamide Topcoat

"Epoxy polyamide topcoat" means a coating used where harder films are required or in some areas where engraving is accomplished in camouflage colors.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2180 Exterior Primer for Large Commercial Aircraft

"Exterior primer for large commercial aircraft" means an aerospace primer, applied to an aircraft of more than 110,000 pounds maximum certified take-off weight, manufactured for non-military use.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2340 Fire-Resistant Interior Coating

"Fire-resistant interior coating" means:

for civilian aircraft, fire-resistant interior coatings used on passenger cabin interior parts that are subject to the Federal Aviation Administration fireworthiness requirements;

for military aircraft, fire-resistant interior coatings are used on parts subject to the flammability requirements of military specifications for aircraft; and

for space applications, fire-resistant interior coatings used on parts subject to NASA flammability requirements for space shuttles and space stations.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2400 Flight Test Coating

"Flight test coating" means a coating applied to aircraft other than missiles or single-use aircraft prior to flight testing to protect the aircraft from corrosion and to provide required marking during flight test evaluation.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2412 Flush Cleaning at Aerospace Facilities

"Flush cleaning at aerospace facilities" means removal of contaminants, such as dirt, grease, oil, and coatings, from an aerospace vehicle or component or from coating equipment by passing solvent over, into, or through the item being cleaned. The solvent may simply be poured into the item being cleaned and then drained, or assisted by air or hydraulic pressure, or by pumping. Hand-wipe cleaning operations in which wiping, scrubbing, mopping, or other hand action are used are not included in this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2480 Fuel Tank Adhesive for Aerospace Applications

"Fuel tank adhesive for aerospace applications" means an adhesive used to bond components exposed to fuel. The adhesive must be compatible with fuel tank coatings.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2485 Fuel Tank Coating for Aerospace Applications

"Fuel tank coating for aerospace applications" means a coating applied to fuel tank components on an aerospace vehicle for the purpose of corrosion and/or bacterial growth inhibition and to assure sealant adhesion in extreme environmental conditions.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2612 General Aviation

"General aviation" means that segment of civil aviation that encompasses all facets of aviation except air carriers, commuters, and military. General aviation includes charter and corporate-executive transportation, instruction, rental, aerial application, aerial observation, business, pleasure, and other special uses.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2613 General Aviation Rework Facility

"General aviation rework facility" means any aerospace facility with the majority of its revenues resulting from the reconstruction, repair, maintenance, repainting, conversion, or alteration of general aviation aerospace vehicles or components.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2795 Hand-Wipe Cleaning Operation at Aerospace Facilities

"Hand-wipe cleaning at aerospace facilities" means removing contaminants, such as dirt, grease, oil, and coatings, from an aerospace vehicle or component by physically rubbing it with a material such as a rag, paper, or cotton swab that has been moistened with a cleaning solvent.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.2980 High Temperature Coating

~~"High temperature coating" means, for~~ For purposes of 35 Ill. Adm. Code 218 and 219, "high temperature coating" means a coating that is certified to withstand a temperature of 538 °C ~~538°C~~ (1000 °F ~~1000°F~~) for 24 hours.

For purposes of 35 Ill. Adm. Code 219.204(r), "high temperature coating" means a coating designed to withstand temperatures of more than 177 °C (350 °F)~~350°F~~.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.3160 Insulation Covering

"Insulation covering" means material that is applied to foam insulation to protect the insulation from mechanical or environmental damage.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.3180 Intermediate Release Coating

"Intermediate release coating" means a thin coating applied beneath topcoats to assist in removing the topcoat in depainting operations and generally to allow the use of less hazardous depainting methods.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.3230 Lacquers

"Lacquers" means, with respect to coating of wood furniture, any clear wood finishes formulated, with nitrocellulose or synthetic resins, to dry by evaporation without chemical reaction, including clear lacquer sanding sealers.

For purposes of 35 Ill. Adm. Code 219.204(r), "lacquers" means a clear or pigmented coating formulated, with a nitrocellulose or synthetic resin, to dry by evaporation without a chemical reaction. Lacquers are resoluble in their original solvent.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.3360 Limited Access Space

"Limited access space" means internal surfaces or passages of an aerospace vehicle or component that cannot be reached without the aid of an airbrush or a spray gun extension for the application of coatings.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.3755 Metalized Epoxy Coating

"Metalized epoxy coating" means an epoxy coating that contains relatively large quantities of metallic pigmentation for appearance and/or added protection.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.3850 Miscellaneous Metal Parts and Products Coating

"Miscellaneous metal parts and products coating" means, for purposes of 35 Ill. Adm. Code 218 and 219, any protective, decorative or functional coating applied onto the surface of any metal part or metal product, even if attached to or combined with a nonmetal part or product.

a) Including ~~but not limited to~~ underbody anti-chip (e.g., underbody plastisol) automobile and light-duty truck coatings;

b) Not~~But not~~ including the following coatings, which are subject to separate regulations: can coatings; coil coatings; metal furniture coatings; large appliance coatings; magnet wire coatings; ~~and~~ prime coat, primer surfacer coat, topcoat, and final repair coat for automobile and light-duty trucks; and aerospace coatings subject to the requirements of 35 Ill. Adm. Code 219.204(r); and

c) Not including the following coatings: architectural coatings, automobile or light-duty truck refinishing coatings, coatings applied to the exterior of marine vessels, coatings applied to the exterior of airplanes, customized topcoat for automobiles and trucks if production is less than 35 ~~thirty-five~~ vehicles per day, and high temperature aluminum coating applied to diesel-electric locomotives in Cook County.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.3870 Miscellaneous Metal Parts or Products Coating Line

"Miscellaneous metal parts or products coating line" means, for purposes of 35 Ill. Adm. Code 218 and 219, a coating line in which any protective, decorative, or functional coating is applied onto the surface of any metal part or metal product, even if attached to or combined with a nonmetal part or product.

a) Including ~~but not limited to~~ underbody anti-chip (e.g., underbody plastisol) automobile and light-duty truck coatings;

b) Not~~But not~~ including the following coatings, which are subject to separate regulations: can coatings;~~,~~ coil coatings;~~,~~ metal furniture coatings;~~,~~ large appliance coatings;~~,~~ magnet wire coatings;~~,~~ ~~and~~ prime coat, primer surfacer coat, topcoat and final repair coat for automobile and light-duty trucks; and aerospace coatings subject to the requirements of 35 Ill. Adm. Code 219.204(r); and

c) Not including the following coatings: architectural coatings, automobile or light-duty truck refinishing coatings, coatings applied to the exterior of marine vessels, coatings applied to the exterior of airplanes, customized topcoat for automobiles and trucks if production is less than 35 ~~thirty-five~~ vehicles per day, and high temperature aluminum coating applied to diesel-electric locomotives in Cook County.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.3920 Mold Release Coating for Aerospace Applications

"Mold release coating for aerospace applications" means a coating applied to a mold surface to prevent the molded piece from sticking to the mold as it is removed.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.4066 Nonstructural Adhesive for Aerospace Applications

"Nonstructural adhesive for aerospace applications" means an adhesive that bonds nonload bearing aerospace components in noncritical applications and is not covered in any other specialty adhesive categories listed in 35 Ill. Adm. Code 219.204(r)(2).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.4215 Optical Antireflection Coating

"Optical antireflection coating" means a coating with a low reflectance in the infrared and visible wavelength ranges that is used for antireflection on or near optical and laser hardware.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.4535 Part Marking Aerospace Coating

"Part marking aerospace coating" means coatings or inks used to make identifying markings on aerospace materials, components, or assemblies. These markings may be either permanent or temporary.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5072 Primer for General Aviation Rework Facility

"Primer for general aviation rework facility" means an aerospace primer applied at a general aviation rework facility.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5336 Radiation-Effect or Electric Coating

"Radiation-effect or electric coating" means a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include lightning strike protection, electromagnetic pulse protection, and radar avoidance. Coatings that have been designated as "classified" by the Department of Defense are exempt from this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5338 Radome

"Radome" means, for purposes of the definitions of "electrostatic discharge and electromagnetic interference" and "rain erosion-resistant coating~~,~~", the nonmetallic protective housing for electromagnetic transmitters and receivers (e.g., radar, electronic countermeasures, etc.).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5339 Rain Erosion-Resistant Coating

"Rain erosion-resistant coating" means a coating or coating system used to protect the leading edges of aerospace parts, such as flaps, stabilizers, radomes, engine inlet nacelles, etc., against erosion caused by rain impact during flight.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5585 Research and Development Operation

"Research and development operation~~Development Operaion~~" means, for purposes of 35 Ill. Adm. Code 218.187, ~~and~~ 219.187, and 219.204(r), an operation:

whose purpose is for research and development of new processes and products;~~,~~

that is conducted under the close supervision of technically trained personnel;~~,~~ and

that is not involved in the manufacture of final or intermediate products for commercial purposes, except in a de minimis manner.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.5675 Rocket Motor Bonding Adhesive

"Rocket motor bonding adhesive" means an adhesive used in rocket motor bonding applications.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5680 Rocket Motor Nozzle Coating

"Rocket motor nozzle coating" means a catalyzed epoxy coating system used in elevated temperature applications on rocket motor nozzles.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5805 Rubber-Based Adhesive

"Rubber-based adhesive" means a quick setting contact cement that provides a strong, yet flexible, bond between two mating surfaces that may be of dissimilar materials.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5855 Scale Inhibitor

"Scale inhibitor" means, for the purposes of 35 Ill. Adm. Code 219.204(r), a coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of scale.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5883 Screen Print Ink for Aerospace Applications

"Screen print ink for aerospace applications" means, for purposes of 35 Ill. Adm. Code 219.204(r), an ink used in screen printing processes during fabrication of decorative laminates and decals at aerospace facilities.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5887 Sealant for Aerospace Applications

"Sealant for aerospace applications" means a material used to prevent the intrusion of water, fuel, air, or other liquids or solids from certain areas of aerospace vehicles or components. There are two categories of sealants: extrudable/rollable/brushable sealants and sprayable sealants.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5895 Seal Coat Maskant

"Seal coat maskant" means an overcoat applied over a maskant to improve abrasion and chemical resistance during production operations.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5900 Self-Priming Topcoat for Aerospace Applications

"Self-priming topcoat for aerospace applications" means a topcoat that is applied directly to an uncoated aerospace vehicle or component for purposes of corrosion prevention, environmental protection, and functional fluid resistance. More than one layer of identical coating formulation may be applied to the vehicle or component. Self-priming topcoats for general aviation rework facilities are not included in this definition.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5905 Self-Priming Topcoat for General Aviation Rework Facility

"Self-priming topcoat for general aviation rework facility" means a self-priming topcoat applied at a general aviation rework facility.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.5907 Semi-Aqueous Cleaning Solvent

"Semi-aqueous cleaning solvent" means a solution in which water is a primary ingredient (60 percent of the solvent solution, as applied, must be water).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6013 Silicone Insulation Material

"Silicone insulation material" means an insulating material applied to exterior metal aerospace surfaces for protection from high temperatures caused by atmospheric friction or engine exhaust. These materials differ from ablative coatings in that they are not "sacrificial".

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6055 Smoothing and Caulking Compounds

"Smoothing and caulking compounds" means semi-solid materials that are applied by hand application methods and are used to aerodynamically smooth exterior vehicle surfaces or fill cavities such as bolt hole accesses. A material shall not be classified as a smoothing and caulking compound if it can also be classified as a sealant.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6064 Solid Film Lubricant

"Solid film lubricant" means, for purposes of 35 Ill. Adm. Code 219.204(r), a very thin coating consisting of a binder system containing as its chief pigment material one or more of the following: molybdenum, graphite, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying (i.e., closely or tightly fitting) surfaces in aerospace applications.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6133 Space Vehicle

"Space vehicle" means a man-made device, either manned or unmanned, designed for operation beyond earth's atmosphere. This definition includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons. Also included is auxiliary equipment associated with test, transport, and storage, that, through contamination, can compromise the space vehicle performance.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6137 Specialized Function Coating

"Specialized function coating" means, for purposes of 35 Ill. Adm. Code 219.204(r), a coating that fulfills extremely specific engineering requirements in aerospace applications that are limited in use and are characterized by low volume usage. This category excludes coatings covered in other specialty coating categories in 35 Ill. Adm. Code 219.204(r)(2).

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6426 Structural Autoclavable Adhesive for Aerospace Applications

"Structural autoclavable adhesive for aerospace applications" means an adhesive used to bond load-carrying aerospace components that is cured by heat and pressure in an autoclave.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6428 Structural Nonautoclavable Adhesive for Aerospace Applications

"Structural nonautoclavable adhesive for aerospace applications" means an adhesive cured under ambient conditions that is used to bond load-carrying aerospace components or other critical functions, such as nonstructural bonding in the proximity of engines.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6575 Temporary Protective Coating for Aerospace Applications

"Temporary protective coating for aerospace applications" means a coating applied to aerospace surfaces to provide scratch or corrosion protection during manufacturing, storage, or transportation. Two types include peelable protective coatings and alkaline removable coatings. These materials are not intended to protect against strong acid or alkaline solutions. Coatings that provide this type of protection from chemical processing are not included in this category.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6583 Thermal Control Coating for Aerospace Applications

"Thermal control coating for aerospace applications" means a coating formulated with specific thermal conductive or radiative properties to permit temperature control of the aerospace substrate.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6670 Topcoat

"Topcoat" means:

Except as used in 35 Ill. Adm. Code 218.204(a)(2) and (q)(5) and 219.204(a)(2), ~~and~~ (q)(5), and (r), a coating applied to a substrate in a multiple coat operation other than prime coat, primer surfacer coat or final repair coat;

For purposes of 35 Ill. Adm. Code 218.204(a)(2) and 219.204(a)(2), the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat;

For purposes of 35 Ill. Adm. Code 218.204(q)(5) and 219.204(q)(5), any final coating applied to the interior or exterior of a pleasure craft;~~.~~

For the purposes of 35 Ill. Adm. Code 219.204(r), a coating that is applied over a primer on an aerospace vehicle or component for appearance, identification, camouflage, or protection. Topcoats that are listed as specialty coatings in 35 Ill. Adm. Code in 219.204(r)(2) are not included in this definition.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.6685 Topcoat for General Aviation Rework Facility

"Topcoat for general aviation rework facility" means a topcoat applied at a general aviation rework facility.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.6720 Touch-Up Coating

"Touch-up coating" means:

Except as used in 35 Ill. Adm. Code 218.204(q), ~~and~~ 219.204(q), and 219.204(r)~~for purposes of motor vehicle refinishing operations~~, a coating applied by brush or hand held, non-refillable aerosol cans to repair minor surface damage and imperfections;

For purposes of 35 Ill. Adm. Code 218.204(q), ~~and~~ 219.204(q), and 219.204(r), a coating used to cover minor coating imperfections appearing after the main coating operation.

(Source: Amended at 45 Ill. Reg. _____, effective_____)

Section 211.7260 Wet Fastener Installation Coating

"Wet fastener installation coating" means a primer or sealant applied by dipping, brushing, or daubing to fasteners that are installed before the coating is cured.

(Source: Added at 45 Ill. Reg. _____, effective_____)

Section 211.7275 Wing Coating

"Wing coating" means a corrosion-resistant topcoat that is resilient enough to withstand the flexing of the wings.

(Source: Added at 45 Ill. Reg. _____, effective_____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSIONS STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 219
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS FOR THE METRO EAST AREA

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219.APPENDIX A List of Chemicals Defining Synthetic Organic Chemical and Polymer Manufacturing
219.APPENDIX B VOM Measurement Techniques for Capture Efficiency (Repealed)
219.APPENDIX C Reference Methods and Procedures
219.APPENDIX D Coefficients for the Total Resource Effectiveness Index (TRE) Equation
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219.APPENDIX H Baseline VOM Content Limitations for Subpart F, Section 219.212 Cross-Line Averaging

AUTHORITY: Implementing Section 10 and authorized by Sections 27, 28 and 28.5 of the Environmental Protection Act [415 ILCS 5/10, 27, 28 and 28.5].

SOURCE: Adopted in R91-8 at 15 Ill. Reg. 12491, effective August 16, 1991; amended in R91-24 at 16 Ill. Reg. 13597, effective August 24, 1992; amended in R91-30 at 16 Ill. Reg. 13883, effective August 24, 1992; emergency amendment in R93-12 at 17 Ill. Reg. 8295, effective May 24, 1993, for a maximum of 150 days; amended in R93-9 at 17 Ill. Reg. 16918, effective September 27, 1993 and October 21, 1993; amended in R93-28 at 18 Ill. Reg. 4242, effective March 3, 1994; amended in R94-12 at 18 Ill. Reg. 14987, effective September 21, 1994; amended in R94-15 at 18 Ill. Reg. 16415, effective October 25, 1994; amended in R94-16 at 18

Ill. Reg. 16980, effective November 15, 1994; emergency amendment in R95-10 at 19 Ill. Reg. 3059, effective February 28, 1995, for a maximum of 150 days; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6958, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7385, effective May 22, 1995; amended in R96-2 at 20 Ill. Reg. 3848, effective February 15, 1996; amended in R96-13 at 20 Ill. Reg. 14462, effective October 28, 1996; amended in R97-24 at 21 Ill. Reg. 7721, effective June 9, 1997; amended in R97-31 at 22 Ill. Reg. 3517, effective February 2, 1998; amended in R04-12/20 at 30 Ill. Reg. 9799, effective May 15, 2006; amended in R06-21 at 31 Ill. Reg. 7110, effective April 30, 2007; amended in R10-10 at 34 Ill. Reg. 5392, effective March 23, 2010; amended in R10-8 at 34 Ill. Reg. 9253, effective June 25, 2010; amended in R10-20 at 34 Ill. Reg. 14326, effective September 14, 2010; amended in R10-8(A) at 35 Ill. Reg. 496, effective December 21, 2010; amended in R11-23 at 35 Ill. Reg. 13676, effective July 27, 2011; amended in R11-23(A), at 35 Ill. Reg. 18830, effective October 25, 2011); amended in R12-24 at 37 Ill. Reg. 1722, effective January 28, 2013; amended in R13-18 at 38 Ill. Reg. 1061, effective December 23, 2013; amended in R21-18 at 45 Ill. Reg._____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 219.105 Test Methods and Procedures

a) Coatings, Inks and Fountain Solutions
The following test methods and procedures must~~shall~~ be used to determine compliance of as applied coatings, inks, and fountain solutions with the limitations set forth in this Part.

1) Sampling: Samples collected for analyses must~~shall~~ be one-liter taken into a one-liter container at a location and time such that the sample will be representative of the coating as applied (i.e., the sample must~~shall~~ include any dilution solvent or other VOM added during the manufacturing process). The container must be tightly sealed immediately after the sample is taken. Any solvent or other VOM added after the sample is taken must be measured and accounted for in the calculations in subsection (a)(3) ~~of this Section~~. For multiple package coatings, separate samples of each component must~~shall~~ be obtained. A mixed sample must~~shall~~ not be obtained as it will cure in the container. Sampling procedures must~~shall~~ follow the guidelines presented in:

A) ASTM D 3925-81 (1985) standard practice for sampling liquid paints and related pigment coating. This practice is incorporated by reference in Section 219.112 ~~of this Part~~.

B) ASTM E 300-86 standard practice for sampling industrial chemicals. This practice is incorporated by reference in Section 219.112 ~~of this Part~~.

2) Analyses: The applicable analytical methods specified in this subsection

(a)(2) must ~~below shall~~ be used to determine the composition of coatings, inks, or fountain solutions as applied.

A) Method 24 of 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used to determine the VOM content and density of coatings. If it is demonstrated to the satisfaction of the Agency and the USEPA that plant coating formulation data are equivalent to Method 24 results, formulation data may be used. In the event of any inconsistency between a Method 24 test and a facility's formulation data, the Method 24 test will govern.

B) Method 24A of 40 CFR 60, appendix A, incorporated by reference in Section 219.112, must~~shall~~ be used to determine the VOM content and density of rotogravure printing inks and related coatings. If it is demonstrated to the satisfaction of the Agency and USEPA that the plant coating formulation data are equivalent to Method 24A results, formulation data may be used. In the event of any inconsistency between a Method 24A test and formulation data, the Method 24A test will govern.

C) The following ASTM methods are the analytical procedures for determining VOM:

i) ASTM D 1475-85: Standard test method for density of paint, varnish, lacquer and related products. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

ii) ASTM D 2369-87: Standard test method for volatile content of a coating. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

iii) ASTM D 3792-86: Standard test method for water content of water-reducible paints by direct injection into a gas chromatograph. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

iv) ASTM D 4017-81 (1987): Standard test method for water content in paints and paint materials by the Karl Fischer method. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

v) ASTM D 4457-85: Standard test method for determination of dichloromethane and 1,1,1, trichloroethane in paints and coatings by direct injection into a gas chromatograph. (The

procedure delineated above can be used to develop protocols for any compounds specifically exempted from the definition of VOM.) This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

vi) ASTM D 2697-86: Standard test method for volume non-volatile matter in clear or pigmented coatings. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

vii) ASTM D 3980-87: Standard practice for interlaboratory testing of paint and related materials. This practice is incorporated by reference in Section 219.112 ~~of this Part~~.

viii) ASTM E 180-85: Standard practice for determining the precision of ASTM methods for analysis of and testing of industrial chemicals. This practice is incorporated by reference in Section 219.112 ~~of this Part~~.

ix) ASTM D 2372-85: Standard method of separation of vehicle from solvent-reducible paints. This method is incorporated by reference in Section 219.112 ~~of this Part~~.

D) Use of an adaptation to any of the analytical methods specified in subsections (a)(2)(A), (B), and (C) ~~of this Section~~ may not be used unless approved by the Agency and USEPA. An owner or operator must submit sufficient documentation for the Agency and USEPA to find that the analytical methods specified in subsections (a)(2)(A), (B), and (C) ~~of this Section~~ will yield inaccurate results and that the proposed adaptation is appropriate.

3) Calculations: Calculations for determining the VOM content, water content and the content of any compounds which are specifically exempted from the definition of VOM of coatings, inks and fountain solutions as applied mustshall follow the guidance provided in the following documents:

A) "A Guide for Surface Coating Calculation", EPA-340/1-86-016, incorporated by reference in Section 219.112 ~~of this Part~~.

B) "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coatings" (revised June 1986), EPA-450/3-84-019, incorporated by reference in Section 219.112 ~~of this Part~~.

C) "A Guide for Graphic Arts Calculations", August 1988, EPA-

340/1-88-003, incorporated by reference in Section 219.112 ~~of this Part~~.

b) Automobile or Light-Duty Truck Test Protocol

1) The protocol for testing, including determining the transfer efficiency of coating applicators, at primer surfacer operations and topcoat operations at an automobile or light-duty truck assembly source must~~shall~~ follow the procedures in the following:

A) Prior to May 1, 2012: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations" ("topcoat protocol"), December 1988, EPA-450/3-88-018, incorporated by reference in Section 219.112 ~~of this Part~~.

B) On and after May 1, 2012: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations" (topcoat protocol), September 2008, EPA-453/R-08-002, incorporated by reference in Section 219.112 ~~of this Part~~.

2) Prior to testing pursuant to the applicable topcoat protocol, the owner or operator of a coating operation subject to the topcoat or primer surfacer limit in Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(E) must~~shall~~ submit a detailed testing proposal specifying the method by which testing will be conducted and how compliance will be demonstrated consistent with the applicable topcoat protocol. The proposal must~~shall~~ include, at a minimum, a comprehensive plan (including a rationale) for determining the transfer efficiency at each booth through the use of in-plant or pilot testing, the selection of coatings to be tested (for the purpose of determining transfer efficiency) including the rationale for coating groupings, the method for determining the analytic VOM content of as applied coatings and the formulation solvent content of as applied coatings, and a description of the records of coating VOM content as applied and coating's usage that will be kept to demonstrate compliance. Upon approval of the proposal by the Agency and USEPA, the compliance demonstration for a coating line may proceed.

c) Capture System Efficiency Test Protocols

1) Applicability
The requirements of subsection (c)(2) must~~of this Section shall~~ apply to all VOM emitting process emission units employing capture equipment (e.g., hoods, ducts), except those cases noted in this subsection (c)(1).

A) If an emission unit is equipped with (or uses) a permanent total enclosure (PTE) that meets Agency and USEPA specifications, and which directs all VOM to a control device, then the emission unit is exempted from the requirements described in subsection (c)(2) ~~of this Section~~. The Agency and USEPA specifications to determine whether a structure is considered a PTE are given in Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. In this instance, the capture efficiency is assumed to be 100 percent and the emission unit is still required to measure control efficiency using appropriate test methods as specified in subsection (d) ~~of this Section~~.

B) If an emission unit is equipped with (or uses) a control device designed to collect and recover VOM (e.g., carbon adsorber), an explicit measurement of capture efficiency is not necessary provided that the conditions given below are met. The overall control of the system can be determined by directly comparing the input liquid VOM to the recovered liquid VOM. The general procedure for use in this situation is given in 40 CFR 60.433, incorporated by reference in Section 219.112 ~~of this Part~~, with the following additional restrictions:

i) The source owner or operator must~~shall~~ obtain data each operating day for the solvent usage and solvent recovery to permit the determination of the solvent recovery efficiency of the system each operating day using a 7-day rolling period. The recovery efficiency for each operating day is computed as the ratio of the total recovered solvent for that day and the most recent prior 6 operating days to the total solvent usage for the same 7-day period used for the recovered solvent, rather than a 30-day weighted average as given in 40 CFR 60.433 incorporated by reference in Section 219.112 ~~of this Part~~. This ratio must~~shall~~ be expressed as a percentage. The ratio must~~shall~~ be computed within 72 hours following each 7-day period. A source that believes that the 7-day rolling period is not appropriate may use an alternative multi-day rolling period not to exceed 30 days, with the approval of the Agency and USEPA. In addition, the criteria in subsection (c)(1)(B)(ii) or (c)(1)(B)(iii) must be met.

ii) The solvent recovery system (i.e., capture and control system) must be dedicated to a single coating line, printing line, or other discrete activity that by itself is subject to an applicable VOM emission standard.

iii) However if the solvent recovery system controls more than one coating line, printing line or other discrete activity that by itself is subject to an applicable VOM emission standard, the overall control (i.e., the total recovered VOM divided by the sum of liquid VOM input from all lines and other activities venting to the control system) must meet or exceed the most stringent standard applicable to any line or other discrete activity venting to the control system.

2) Capture Efficiency Protocols
The capture efficiency of an emission unit must~~shall~~ be measured using one of the protocols given below. Appropriate test methods to be utilized in each of the capture efficiency protocols are described in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. Any error margin associated with a test method or protocol may not be incorporated into the results of a capture efficiency test. If these techniques are not suitable for a particular process, then an alternative capture efficiency protocol may be used, pursuant to the provisions of Section 219.108(b) ~~of this Part~~.

A) Gas/gas method using temporary total enclosure (TTE). The Agency and USEPA specifications to determine whether a temporary enclosure is considered a TTE are given in Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. The capture efficiency equation to be used for this protocol is:

$$CE = \frac{G_w}{G_w + F_w}$$

where:

CE = capture efficiency, decimal fraction;

G_w = mass of VOM captured and delivered to control device using a TTE;

F_w = mass of uncaptured VOM that escapes from a TTE.

Method 204B or 204C contained in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part,~~ is used to obtain G_w. Method 204D in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part,~~ is used to obtain F_w.

B) Liquid/gas method using TTE. The Agency and USEPA

specifications to determine whether a temporary enclosure is considered a TTE are given in Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. The capture efficiency equation to be used for this protocol is:

$$CE = \frac{L - F_W}{L}$$

where:

CE = capture efficiency, decimal fraction;

L = mass of liquid VOM input to process emission unit;

F_w = mass of uncaptured VOM that escapes from a TTE.

Method 204A or 204F contained in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain L. Method 204 in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain F_w.

C) Gas/gas method using the building or room (building or room enclosure), in which the affected coating line, printing line or other emission unit is located, as the enclosure, as determined by Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, and in which "F_B" and "G" are measured while operating only the affected line or emission unit. All fans and blowers in the building or room must be operated as they would under normal production. The capture efficiency equation to be used for this protocol is:

$$CE = \frac{G}{G + F_B}$$

where:

CE = capture efficiency, decimal fraction;

G = mass of VOM captured and delivered to control device;

F_B = mass of uncaptured VOM that escapes from building enclosure.

Method 204B or 204C contained in appendix M of 40 CFR 51,

incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain G. Method 204E in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain F_B.

D) Liquid/gas method using the building or room (building or room enclosure), in which the affected coating line, printing line or other emission unit is located, as the enclosure as determined by Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part,~~ and in which "F_B" and "L" are measured while operating only the affected line emission unit. All fans and blowers in the building or room must be operated as they would under normal production. The capture efficiency equation to be used for this protocol is:

$$CE = \frac{L - F_B}{L}$$

where:

CE = capture efficiency, decimal fraction;

L = mass of liquid VOM input to process emission unit;

F_B = mass of uncaptured VOM that escapes from building enclosure.

Method 204A or 204F contained in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain L. Method 204E in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, is used to obtain F_B.

E) Mass balance using Data Quality Objective (DQO) or Lower Confidence Limit (LCL) protocol. For a liquid/gas input where an owner or operator is using the DQO/LCL protocol and not using an enclosure as described in Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, the VOM content of the liquid input (L) must be determined using Method 204A or 204F in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. The VOM content of the captured gas stream (G) to the control device must be determined using Method 204B or 204C in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~. The results of capture efficiency calculations (G/L) must satisfy the DQO or LCL statistical analysis methodology as described in Section 3 of USEPA's "Guidelines for Determining Capture Efficiency", incorporated by reference at Section 219.112 ~~of this~~

~~Part~~. Where capture efficiency testing is done to determine emission reductions for the purpose of establishing emission credits for offsets, shutdowns, and trading, the LCL protocol cannot be used for these applications. In enforcement cases, the LCL protocol cannot confirm non-compliance; capture efficiency must be determined using a protocol under subsection (c)(2)(A), (B), (C) or (D)~~of this Section~~, the DQO protocol of this subsection (c)(2)(E), or an alternative protocol pursuant to Section 219.108(b) ~~of this Part~~.

BOARD NOTE: Where LCL was used in testing emission units that are the subject of later requests for establishing emission credits for offsets, shutdowns, and trading, prior LCL results may not be relied upon to determine the appropriate amount of credits. Instead, to establish the appropriate amount of credits, additional testing may be required that would satisfy the protocol of Section 219.105(c)(2)(A), (B), (C) or (D), the DQO protocol of Section 219.105(c)(2)(E), or an alternative protocol pursuant to Section 219.108(b) ~~of this Part~~.

3) Simultaneous testing of multiple lines or emission units with a common control device. If an owner or operator has multiple lines sharing a common control device, the capture efficiency of the lines may be tested simultaneously, subject to the following provisions:

A) Multiple line testing must meet the criteria of Section 4 of USEPA's "Guidelines for Determining Capture Efficiency", incorporated by reference at Section 219.112 ~~of this Part~~;

B) The most stringent capture efficiency required for any individual line or unit must be met by the aggregate of lines or units; and

C) Testing of all the lines of emission units must be performed with the same capture efficiency test protocol.

4) Recordkeeping and Reporting

A) All owners or operators affected by this subsection must maintain a copy of the capture efficiency protocol submitted to the Agency and the USEPA on file. All results of the appropriate test methods and capture efficiency protocols must be reported to the Agency within 60 days after the test date. A copy of the results must be kept on file with the source for a period of 3 years.

B) If any changes are made to capture or control equipment, then the source is required to notify the Agency and the USEPA of these

changes and a new test may be required by the Agency or the USEPA.

C) The source must notify the Agency 30 days prior to performing any capture efficiency or control test. At that time, the source must notify the Agency which capture efficiency protocol and control device test methods will be used. Notification of the actual date and expected time of testing must be submitted a minimum of 5 working days prior to the actual date of the test. The Agency may at its discretion accept notification with shorter advance notice provided that such arrangements do not interfere with the Agency's ability to review the protocol and/or observe testing.

D) Sources utilizing a PTE must demonstrate that this enclosure meets the requirement given in Method 204 in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, for a PTE during any testing of their control device.

E) Sources utilizing a TTE must demonstrate that their TTE meets the requirements given in Method 204 in appendix M or 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, for a TTE during any testing of their control device. The source must also provide documentation that the quality assurance criteria for a TTE have been achieved.

F) Any source utilizing the DQO or LCL protocol must submit the following information to the Agency with each test report:

i) A copy of all test methods, Quality Assurance/Quality Control procedures, and calibration procedures to be used from those described in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~;

ii) A table with information on each sample taken, including the sample identification and the VOM content of the sample;

iii) The quantity of material used for each test run;

iv) The quantity of captured VOM for each test run;

v) The capture efficiency calculations and results for each test run;

vi) The DQO and/or LCL calculations and results; and

vii) The Quality Assurance/Quality Control results, including how often the instruments were calibrated, the calibration results, and the calibration gases used.

d) Control Device Efficiency Testing and Monitoring

1) The control device efficiency mustshall be determined by simultaneously measuring the inlet and outlet gas phase VOM concentrations and gas volumetric flow rates in accordance with the gas phase test methods specified in subsection (f) of this Section.

2) An owner or operator:

A) That uses an afterburner or carbon adsorber to comply with any Section of this Part mustshall use Agency and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use except as provided in subsection (d)(3) of this Section. The continuous monitoring equipment must monitor the following parameters:

i) For each afterburner which does not have a catalyst bed, the combustion chamber temperature of each afterburner.

ii) For each afterburner which has a catalyst bed, commonly known as a catalytic afterburner, the temperature rise across each catalytic afterburner bed or VOM concentration of exhaust.

iii) For each carbon adsorber, the VOM concentration of each carbon adsorption bed exhaust or the exhaust of the bed next in sequence to be desorbed.

B) Must install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device, such as a strip chart, recorder or computer, having an accuracy of ± 1 percent of the temperature measured, expressed in degrees Celsius or ± 0.5° C, whichever is greater.

C) Of an automobile or light-duty truck primer surfacer operation or topcoat operation subject to subsection (d)(2)(A) mustshall keep a separate record of the following data for the control devices, unless alternative provisions are statedset forth in a permit pursuant to Title V of the Clean Air Act:

i) For thermal afterburners for which combustion chamber temperature is monitored, all 3-hour periods of operation in which the average combustion temperature was more than 28 °C (50 °F) ~~28° C (50° F)~~ below the average combustion temperature measured during the most recent performance test that demonstrated that the operation was in compliance.

ii) For catalytic afterburners for which temperature rise is monitored, all 3-hour periods of operation in which the average gas temperature before the catalyst bed is more than 28 °C (50 °F) ~~28° C (50° F)~~ below the average gas temperature immediately before the catalyst bed measured during the most recent performance test that demonstrated that the operation was in compliance.

iii) For catalytic afterburners and carbon adsorbers for which VOM concentration is monitored, all 3-hour periods of operation during which the average VOM concentration or the reading of organics in the exhaust gases is more than 20 percent greater than the average exhaust gas concentration or reading measured by the organic monitoring device during the most recent determination of the recovery efficiency of a carbon adsorber or performance test for a catalytic afterburner, which determination or test that demonstrated that the operation was in compliance.

3) An owner or operator that uses a carbon adsorber to comply with Section 219.401 ~~of this Part~~ may operate the adsorber during periods of monitoring equipment malfunction, provided that:

A) The owner or operator notifies in writing the Agency and USEPA, within 10 days after the conclusion of any 72 hour period during which the adsorber is operated and the associated monitoring equipment is not operational, of such monitoring equipment failure and provides the duration of the malfunction, a description of the repairs made to the equipment, and the total to date of all hours in the calendar year during which the adsorber was operated and the associated monitoring equipment was not operational;

B) During such period of malfunction the adsorber is operated using timed sequences as the basis for periodic regeneration of the adsorber;

C) The period of such adsorber operation does not exceed 360 hours in any calendar year without the approval of the Agency and USEPA; and

D) The total of all hours in the calendar year during which the adsorber was operated and the associated monitoring equipment was not operational mustshall be reported, in writing, to the Agency and USEPA by January 31 of the following calendar year.

e) Overall Efficiency

1) The overall efficiency of the emission control system mustshall be determined as the product of the capture system efficiency and the control device efficiency or by the liquid/liquid test protocol as specified in 40 CFR 60.433, incorporated by reference in Section 219.112 of this Part, (and revised by subsection (c)(1)(B) of this Section) for each solvent recovery system. In those cases in which the overall efficiency is being determined for an entire line, the capture efficiency used to calculate the product of the capture and control efficiency is the total capture efficiency over the entire line.

2) For coating lines which are both chosen by the owner or operator to comply with Section 219.207(a), (d), (e), (f), (g), (l), or (m), or (n) of this Part by the alternative in Section 219.207(b)(2) of this Part and meet the criteria allowing them to comply with Section 219.207 instead of Section 219.204 of this Part, the overall efficiency of the capture system and control device, as determined by the test methods and procedures specified in subsections (c), (d) and (e)(1) of this Section, mustshall be no less than the equivalent overall efficiency that must which shall be calculated by the following equation:

$$E = \frac{VOM_a - VOM_l}{VOM_a} \times 100$$

where:

E = Equivalent overall efficiency of the capture system and control device as a percentage;

VOM_a = Actual VOM content of a coating, or the daily-weighted average VOM content of two or more coatings (if more than one coating is used), as applied to the subject coating line as determined by the applicable test methods and procedures specified in subsection (a)(4)(i) of this Part in units of kg VOM/1 (lb VOM/gal) of coating solids as applied;

VOM_l = The VOM emission limit specified in Sections 219.204 or 219.205 of this Part in units of kg VOM/1

(lb VOM/gal) of coating solids as applied.

f) Volatile Organic Material Gas Phase Source Test Methods
The methods in 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~ delineated in this subsection (f) must ~~below shall~~ be used to determine control device efficiencies.

1) 40 CFR 60, appendix A, Method 18, 25 or 25A, incorporated by reference in Section 219.112 ~~of this Part~~ as appropriate to the conditions at the site, must~~shall~~ be used to determine VOM concentration. Method selection must~~shall~~ be based on consideration of the diversity of organic species present and their total concentration and on consideration of the potential presence of interfering gases. Except as indicated in subsections (f)(1)(A) and (B) below, the test must~~shall~~ consist of three separate runs, each lasting a minimum of 60 min, unless the Agency and the USEPA determine that process variables dictate shorter sampling times.

A) When the method is to be used to determine the efficiency of a carbon adsorption system with a common exhaust stack for all the individual adsorber vessels, the test must~~shall~~ consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all the individual adsorber vessels.

B) When the method is to be used to determine the efficiency of a carbon adsorption system with individual exhaust stacks for each adsorber vessel, each adsorber vessel must~~shall~~ be tested individually. The test for each adsorber vessel must~~shall~~ consist of three separate runs. Each run must~~shall~~ coincide with one or more complete adsorption cycles.

2) 40 CFR 60, appendix A, Method 1 or 1A, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used for sample and velocity traverses.

3) 40 CFR 60, appendix A, Method 2, 2A, 2C or 2D, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used for velocity and volumetric flow rates.

4) 40 CFR 60, appendix A, Method 3, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used for gas analysis.

5) 40 CFR 60, appendix A, Method 4, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used for stack gas moisture.

6) 40 CFR 60, appendix A, Methods 2, 2A, 2C, 2D, 3 and 4, incorporated by

reference in Section 219.112 ~~of this Part~~, mustshall be performed, as applicable, at least twice during each test run.

7) Use of an adaptation to any of the test methods specified in subsections (f)(1), (2), (3), (4), (5) and (6)~~ of this Section~~ may not be used unless approved by the Agency and the USEPA on a case by case basis. An owner or operator must submit sufficient documentation for the Agency and the USEPA to find that the test methods specified in subsections (f)(1), (2), (3), (4), (5) and (6)~~ of this Section~~ will yield inaccurate results and that the proposed adaptation is appropriate.

g) Leak Detection Methods for Volatile Organic Material
Owners or operators required by this Part to carry out a leak detection monitoring program mustshall comply with the following requirements:

1) Leak Detection Monitoring

A) Monitoring mustshall comply with 40 CFR 60, appendix A, Method 21, incorporated by reference in Section 219.112 ~~of this Part~~.

B) The detection instrument mustshall meet the performance criteria of Method 21.

C) The instrument mustshall be calibrated before use on each day of its use by the methods specified in Method 21.

D) Calibration gases mustshall be:

i) Zero air (less than 10 ppm of hydrocarbon in air); and

ii) A mixture of methane or n-hexane and air at a concentration of approximately, but no less than, 10,000 ppm methane or n-hexane.

E) The instrument probe mustshall be traversed around all potential leak interfaces as close to the interface as possible as described in Method 21.

2) When equipment is tested for compliance with no detectable emissions as required, the test mustshall comply with the following requirements:

A) The requirements of subsections (g)(1)(A) through (g)(1)(E) ~~of this Section~~ mustshall apply.

B) The background level mustshall be determined as statedset forth in

Method 21.

3) Leak detection tests mustshall be performed consistent with:

A) "APTI Course SI 417 controlling Volatile Organic Compound Emissions from Leaking Process Equipment", EPA-450/2-82-015, incorporated by reference in Section 219.112 of this Part.

B) "Portable Instrument User's Manual for Monitoring VOM Sources", EPA-340/1-86-015, incorporated by reference in Section 219.112 of this Part.

C) "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOM and VHAP", EPA-450/3-88-010, incorporated by reference in Section 219.112 of this Part.

D) "Petroleum Refinery Enforcement Manual", EPA-340/1-80-008, incorporated by reference in Section 219.112 of this Part.

h) Bulk Gasoline Delivery System Test Protocol

1) The method for determining the emissions of gasoline from a vapor recovery system are delineated in 40 CFR 60, subpart XX, section 60.503, incorporated by reference in Section 219.112 of this Part.

2) Other tests mustshall be performed consistent with:

A) "Inspection Manual for Control of Volatile Organic Emissions from Gasoline Marketing Operations: Appendix D", EPA-340/1-80-012, incorporated by reference in Section 219.112 of this Part.

B) "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals: Appendix A", EPA-450/2-77-026, incorporated by reference in Section 219.112 of this Part.

i) Notwithstanding other requirements of this Part, upon request of the Agency where it is necessary to demonstrate compliance, an owner or operator of an emission unit which is subject to this Part mustshall, at his own expense, conduct tests in accordance with the applicable test methods and procedures specific in this Part. Nothing in this Section limitsshall limit the authority of the USEPA underpursuant to the Clean Air Act, as amended, to require testing.

j) Cleaning Solvents Subject to Section 219.219(g)

1) For aqueous and semiaqueous cleaning solvents, manufacturers' supplied data must be used to determine the water content.

2) For hand-wipe cleaning solvents required in Section 219.219(g)(2), manufacturers' supplied data or standard engineering reference texts or other equivalent methods must be used to determine the vapor pressure or VOM composite vapor pressure for blended cleaning solvents.

(Source: Amended at_____, effective_____)

Section 219.106 Compliance Dates

a) Except as provided in subsection (b), (c), (d), ~~or~~ (e), or (f), compliance with the requirements of this Part is required by May 15, 1992, consistent with the provisions of Section 219.103 ~~of this Part~~.

b) As this Part is amended from time to time, compliance dates included in the specific Subparts supersede the requirements of this Section, except as limited by Section 219.101(b) ~~of this Subpart~~.

c) Any owner or operator of a source subject to the requirements of Section 219.204(c)(2), 219.204(g)(2), or 219.204(h)(2) must~~of this Part shall~~ comply with the applicable requirements in the applicable subsections, as well as all applicable requirements in Sections 219.205 through 219.214 and 219.218, by May 1, 2012.

d) Any owner or operator of a source subject to the requirements of Section 219.204(o) must~~of this Part shall~~ comply with the requirements in Section 219.204(o), as well as all applicable requirements in Sections 219.205 through 219.211, 219.214, and 219.217 by August 1, 2010.

e) Any owner or operator of a source subject to the requirements of Section 219.204(a)(2) or 219.204(q) must~~of this Part shall~~ comply with the applicable requirements in those Sections, as well as all applicable requirements in Sections 219.205 through 219.214 and 219.219, by May 1, 2011.

f) Any owner or operator of a source subject to the requirements of Section 219.204(r) must comply with the requirements in Section 219.204(r), as well as all applicable requirements in Sections 219.205, 219.207, 219.208, 219.211, and 219.219~~,~~ by July~~January~~ 1, 2021.

(Source: Amended at_____, effective_____)

Section 219.110 Vapor Pressure of Organic Material or Solvent

a) If the organic material or solvent consists of only a single compound, the vapor pressure mustshall be determined by ASTM Method D2879-86 (incorporated by reference in Section 219.112 ~~of this Part~~) or the vapor pressure may be obtained from a publication such as: Boublik, T., V. Fried and E. Hala, "The Vapor

Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973); Perry's Chemical Engineer's Handbook, McGraw-Hill Book Company (1984); CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-87); and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985).

b) Except as provided in subsection (d), if~~If~~ the organic material or solvent is in a mixture made up of both organic material compounds and compounds which are not organic material, the vapor pressure must~~shall~~ be determined by the following equation:

$$P_{om} = \frac{\sum_{i=1}^{n} P_i X_i}{\sum_{i=1}^{n} X_i}$$

where:

P_{om} = Total vapor pressure of the portion of the mixture which is composed of organic material;

n = Number of organic material components in the mixture;

I = Subscript denoting an individual component;

P_i = Vapor pressure of an organic material component determined in accordance with subsection (a)~~ of this Section~~;

X_i = Mole fraction of the organic material component of the total organic mixture.

c) If the organic material or solvent is in a mixture made up of only organic material compounds, the vapor pressure must~~shall~~ be determined by ASTM Method D2879-86 (incorporated by reference in Section 219.112 ~~of this Part~~) or by the above equation.

d) For hand-wipe cleaning solvents used at aerospace facilities subject to Section 219.219(g)(2), the composite vapor pressure of a cleaning solvent consisting of multiple components must be determined by the following equation:

$$PP_c = \sum_{i=1}^{n} \frac{\frac{W_i}{MW_1} \times VP_i}{\frac{W_w}{MW_w} + \sum_{j=1}^{n} \frac{W_j}{MW_j} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

where:

PP_c = Composite vapor pressure of the cleaning solvent in mmHg at 20 °C ~~20°C~~;

n = Number of components in the cleaning solvent

i = Subscript denoting an individual VOM-containing component;

j = Subscript denoting an individual non-VOM component;

W_i = Weight of a VOM-containing component in grams;

W_j = Weight of a non-VOM component in grams;

W_w = Weight of water in grams;

MW_i = Molecular weight a VOM-containing component in grams per gram-mole;

MW_j = Molecular weight of a non-VOM component in grams per gram-mole

MW_w = Molecular weight of water in grams per gram-mole;

VP_i = Vapor pressure of a VOM-containing component in mmHg at 20 °C ~~20°C~~.

(Source: Amended at_____, effective_____)

Section 219.112 Incorporations by Reference

The following materials are incorporated by reference and do not contain any subsequent additions or amendments:

a) American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken PA 19428-9555

1) ASTM D 2879-86

2) ASTM D 323-08

3) ASTM D 86-82

4) ASTM D 369-69 (1971)

5) ASTM D 396-69

6) ASTM D 2880-71

7) ASTM D 975-68

8) ASTM D 3925-81 (1985)

9) ASTM E 300-86

10) ASTM D 1475-85

11) ASTM D 2369-87

12) ASTM D 3792-86

13) ASTM D 4017-81 (1987)

14) ASTM D 4457-85

15) ASTM D 2697-86

16) ASTM D 3980-87

17) ASTM E 180-85

18) ASTM D 2372-85

19) ASTM D 97-66

20) ASTM E 168-87 (1977)

21) ASTM E 169-87

22) ASTM E 260-91

23) ASTM D 2504-83

24) ASTM D 2382-83

b) Standard Industrial Classification Manual, published by Executive Office of the President, Office of Management and Budget, Washington, D.C., 1987.

c) American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks", Second ed., February 1980.

d) 40 CFR 60 (July 1, 1991).

e) 40 CFR 61 (July 1, 1991).

f) 40 CFR 50 (July 1, 1991).

g) 40 CFR 51 (July 1, 1991) and 40 CFR 51, appendix M, Methods 204-204F (July 1, 1999).

h) 40 CFR 52 (July 1, 1991).

i) "A Guide for Surface Coating Calculation", July 1986, United States Environmental Protection Agency, Washington, D.C., EPA-340/1-86-016.

j) "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coating" (revised June 1986), United States Environmental Protection Agency, Washington D.C., EPA-450/3-84-019.

k) "A Guide for Graphic Arts Calculations", August 1988, United States Environmental Protection Agency, Washington D.C., EPA-340/1-88-003.

l) "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", December 1988, United States Environmental Protection Agency, Washington D.C., EPA-450/3-88-018.

m) "Control of Volatile Organic Emissions from Manufacturing of Synthesized Pharmaceutical Products", December 1978, United States Environmental Protection Agency, Washington, D.C., EPA-450/2-78-029.

n) "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems", December 1978, Appendix B, United States Environmental Protection Agency, Washington, D.C., EPA-450/2-78-051.

o) "Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners", September 1982, United States Environmental Protection Agency, Washington, D.C., EPA-450/3-82-009.

p) "APTI Course SI417 Controlling Volatile Organic Compound Emissions from Leaking Process Equipment", 1982, United States Environmental Protection

Agency, Washington, D.C., EPA-450/2-82-015.

q) "Portable Instrument User's Manual for Monitoring VOM Sources", June 1986, United States Environmental Protection Agency, Washington, D.C., EPA-340/1-86-015.

r) "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOM and VHAP", October 1988, United States Environmental Protection Agency, Washington, D.C., EPA-450/3-88-010.

s) "Petroleum Refinery Enforcement Manual", March 1980, United States Environmental Protection Agency, Washington, D.C., EPA-340/1-80-008.

t) "Inspection Manual for Control of Volatile Organic Emissions from Gasoline Marketing Operations: Appendix D", 1980, United States Environmental Protection Agency, Washington, D.C., EPA-340/1-80-012.

u) "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals: Appendix A", December 1977, United States Environmental Protection Agency, Washington, D.C., EPA-450/2-77-026.

v) California Air Resources Board, Compliance Division. Compliance Assistance Program: Gasoline Marketing and Distribution: Gasoline Facilities Phase I & II (October 1988, rev. November 1993) (CARB Manual).

w) "Guidelines for Determining Capture Efficiency", January 1995, Office of Air Quality Planning and Standards, United States Environmental Protection Agency, Research Triangle Park NC.

x) Memorandum "Revised Capture Efficiency Guidance for Control of Volatile Organic Compound Emissions", February1995, John S. Seitz, Director, Office of Air Quality Planning and Standards, United States Environmental Protection Agency.

y) "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations", September 2008, United States Environmental Protection Agency, Washington, D.C., EPA-453/R-08-002.

z) 40 CFR 63 subpart PPPP, appendix A (2008).

aa) 46 CFR subchapter Q (2007).

bb) 46 CFR subchapter T (2008).

cc) 40 CFR 82.4 (2020).

(Source: Amended at_____, effective_____)

SUBPART E: SOLVENT CLEANING

Section 219.187 Other Industrial Solvent Cleaning Operations

a) Applicability. On and after January 1, 2012:

1) Except as provided in subsection (a)(2) ~~of this Section~~, the requirements of this Section ~~shall~~ apply to all cleaning operations that use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more of VOM, in the absence of air pollution control equipment, from cleaning operations at the source other than cleaning operations identified in subsection (a)(2) ~~of this Section~~. For purposes of this Section, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;

2) Notwithstanding subsection (a)(1) ~~of this Section~~:

A) The following cleaning operations are~~shall be~~ exempt from the requirements of subsections (b), (c), (d), (e), (f), and (g) ~~of this Section~~:

i) Cleaning operations subject to the limitations in Sections 219.182, 219.183, or 219.184;

ii) Janitorial cleaning;

iii) Stripping of cured coatings, inks, or adhesives;

iv) Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;

B) Cleaning operations for emission units within the following categories are~~shall be~~ exempt from the requirements of subsections (b), (c), (d), (e), (f), and (g) ~~of this Section~~:

i) Flexible package printing;

ii) Lithographic printing;

iii) Letterpress printing;

iv) Flat wood paneling coating;

v) Large appliance coating;

vi) Metal furniture coating;

vii) Paper, film, and foil coating;

viii) Wood furniture coating;

ix) Plastic parts coating;

x) Miscellaneous metal parts coating;

xi) Fiberglass boat manufacturing;

xii) Miscellaneous industrial adhesives; ~~and~~

xiii) Auto and light-duty truck assembly coating; and

xiv) Aerospace facilities.

C) The following cleaning operations are~~shall be~~ exempt from the requirements of subsections (b), (c), (f), and (g)~~ of this Section~~:

i) Cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics;

ii) Cleaning conducted as part of performance laboratory tests on coatings, adhesives, or inks; research and development operations; or laboratory tests in quality assurance laboratories;

iii) Cleaning of paper-based gaskets and clutch assemblies where rubber is bonded to metal by means of an adhesive;

iv) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics;

v) Cleaning of medical device and pharmaceutical manufacturing operations if the facility uses no more than

5.7 liters (1.5 gallons) per day of solvents for such cleaning;

vi) Cleaning of adhesive application equipment used for thin metal laminating;

vii) Cleaning of electronic or electrical cables;

viii) Touch-up cleaning performed on printed circuit boards where surface mounted devices have already been attached;

ix) Cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery products using no more than three gallons per day of ethyl acetate;

x) Cleaning of application equipment used to apply coatings on satellites and radiation effect coatings;

xi) Cleaning of application equipment used to apply solvent-borne fluoropolymer coatings;

xii) Cleaning of ultraviolet or electron beam adhesive application;

xiii) Cleaning of sterilization indicating ink application equipment if the facility uses no more than 5.7 liters (1.5 gallons) per day of solvents for such cleaning;

xiv) Cleaning of metering rollers, dampening rollers, and printing plates;

xv) Cleaning of numismatic dies; and

xvi) Cleaning operations associated with digital printing;

xvii) Cleaning with aerosol products if the facility uses no more than 4.7 liters (1.25 gallons) per day of <u>those</u>~~such~~ products;

xviii) Cleaning of plastic-based or vinyl-based substrates for use in the screen printing process when using UV curable ink and coating systems;

xix) Cleaning conducted as part of performance tests on coatings, adhesives, or inks that are in research and development and that are not yet commercially used for the applications for which they are being tested. This

exemption is limited to the use of up to a total of 90.9 liters (24 gallons) per calendar month and 416.3 liters (110 gallons) of cleaning solvent per calendar year for that~~such~~ cleaning.

b) Material and Control Requirements. An~~No~~ owner or operator of a source subject to this Section, other than manufacturers of coatings, inks, adhesives, or resins, must not~~shall~~ perform any cleaning operation subject to this Section unless the owner or operator meets the requirements in subsection (b)(1), (b)(2), or (b)(3). An~~No~~ owner or operator of a source that manufactures coatings, inks, adhesives, or resins must not~~shall~~ perform any cleaning operation subject to this Section unless the owner or operator meets the requirements in at least one of the following subsections: (b)(1), (b)(2), (b)(3), (b)(4), or (b)(5).

1) The VOM content of the as-used cleaning solutions does not exceed the following emissions limitations:

A) Product cleaning during manufacturing process or surface preparation for coating, adhesive, or ink application:

		kg/l	lb/gal
i)	Electrical apparatus components and electronic components	0.10	0.83
ii)	Medical device and pharmaceutical manufacturing	0.80	6.7

B) Repair and maintenance cleaning:

		kg/l	lb/gal
i)	Electrical apparatus components and electronic	0.10	0.83
ii)	Medical device and pharmaceutical manufacturing: tools, equipment, and machinery	0.80	6.7
iii)	Medical device and pharmaceutical manufacturing: general work surfaces	0.60	5.0

C) Cleaning of ink application equipment:

		kg/l	lb/gal
i)	Rotogravure printing that does not		

		print flexible packaging	0.10	0.83
	ii)	Screen printing, including screen reclamation activities	0.50	4.2
	iii)	Ultraviolet ink and electron beam ink application equipment, except screen printing	0.65	5.4
	iv)	Flexographic printing that does not print flexible packaging	0.10	0.83
			kg/l	lb/gal
D)	Cleaning of equipment used in the manufacture of coatings, inks, adhesives, or resins		0.20	1.67
			kg/l	lb/gal
E)	All other cleaning operations not subject to a specific limitation in subsections (b)(1)(A) through (b)(1)(D) ~~of this Section~~		0.050	0.42

2) The VOM composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20 °C (68 °F) ~~20°C (68°F)~~;

3) An afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, or for sources that manufacture coatings, inks, adhesives, or resins, an afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 80 percent overall and has a 90 percent efficiency. The owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation in accordance with the applicable capture and control requirements of this subsection (b)(3), the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions;

4) For sources that manufacture coatings, inks, adhesives, or resins, the owner or operator complies with the following work practices:

A) Equipment being cleaned is maintained leak-free;

B) VOM-containing cleaning materials are drained from the cleaned equipment upon completion of cleaning;

C) VOM-containing cleaning materials, including waste solvent, are not stored or disposed of in such a manner that will cause or allow evaporation into the atmosphere; and

D) VOM-containing cleaning materials are stored in closed containers;

5) Sources that manufacture coatings, inks, adhesives, or resins may utilize solvents that do not comply with subsection (b)(1) or (b)(2) ~~of this Section~~ provided that all of the following requirements are met:

A) No more than 228 l (60 gal) of fresh solvent is used per calendar month. Solvent that is reused or recycled, either onsite or offsite, for further use in equipment cleaning or in the manufacture of coatings, inks, adhesives, or resins, must ~~shall~~ not be included in this limit;

B) Solvents, including cleanup solvents, are collected and stored in closed containers; and

C) Records are maintained in accordance with subsection (e)(6).

c) The owner or operator of a subject source must ~~shall~~ demonstrate compliance with this Section by using the applicable test methods and procedures specified in subsection (g) ~~of this Section~~ and by complying with the recordkeeping and reporting requirements specified in subsection (e) ~~of this Section~~.

d) Operating Requirements. The owner or operator of a source subject to ~~the requirements of~~ this Section must ~~shall~~ comply with the following for each subject cleaning operation. These ~~Such~~ requirements are in addition to work practices specified ~~set forth~~ in subsections (b)(4) and (b)(5) ~~of this Section~~, as applicable:

1) Cover open containers and properly cover and store applicators used to apply cleaning solvents;

2) Minimize air circulation around the cleaning operation;

3) Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;

4) Utilize equipment practices that minimize emissions;

5) When using cleaning solvent for wipe cleaning, sources that manufacture coatings, inks, adhesives, or resins must~~shall~~:

A) Cover open containers used for the storage of spent or fresh organic compounds used for cleanup or coating, ink, adhesive, or resin removal; and

B) Cover open containers used for the storage or disposal of cloth or paper impregnated with organic compounds that are used for cleanup or coating, ink, adhesive, or resin removal.

e) Recordkeeping and Reporting Requirements

1) The owner or operator of a source exempt from the limitations of this Section because of the criteria in subsection (a)(1) ~~of this Section~~ must~~shall~~ comply with the following:

A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:

i) A declaration that the source is exempt from the requirements of this Section because of the criteria in subsection (a)(1);

ii) Calculations that demonstrate that combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in subsection (a)(2)~~ of this Section~~, never equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment. An emission adjustment factor of 0.50 must~~shall~~ be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is demonstrated to be less than 10 mmHg at 20 °C (68 °F) ~~20ºC (68ºF)~~ and the used shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressure of equal to or greater than 10 mmHg measured at 20 °C (68 °F) ~~20ºC (68ºF)~~ and for shop towels that are not kept in closed containers, an~~no~~ emission adjustment factor must not~~shall~~ be used;

B) On and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in subsection (a)(2)~~ of this Section~~:

i) The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;

ii) The VOM content of each cleaning solution as applied in each cleaning operation;

iii) The weight of VOM per volume and the volume of each as-used cleaning solution; and

iv) The total monthly VOM emissions from cleaning operations at the source;

C) Notify the Agency of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in subsection (a)(2) ~~of this Section~~, ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.

2) All sources subject to ~~the requirements of~~ this Section must~~shall~~:

A) By January 1, 2012 or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:

i) A declaration that all subject cleaning operations are in compliance with ~~the requirements of~~ this Section;

ii) Identification of each subject cleaning operation and each VOM-containing cleaning solution used as of the date of certification in such operation;

iii) If complying with the emissions control system requirement, what type of emissions control system will be used;

iv) Initial documentation that each subject cleaning operation will comply with the applicable limitation, including copies of manufacturer's specifications, test results (if any), formulation data, and calculations;

v) Identification of the methods that will be used to demonstrate continuing compliance with the applicable limitations;

vi) A description of the practices and procedures that the source will follow to ensure compliance with the limitations in subsection (d), and, if applicable, subsection (b)(4); and

vii) A description of each cleaning operation exempt underpursuant to subsection (a)(2), if any, and a listing of the emission units on which the exempt cleaning operation is performed;

B) At least 30 calendar days before changing the method of compliance between subsections (b)(1), (b)(2), (b)(4), or (b)(5) and subsection (b)(3) of this Section, notify the Agency in writing of thesuch change. The notification mustshall include a demonstration of compliance with the newly applicable subsection;

3) All sources complying with this Section underpursuant to the requirements of subsection (b)(1) of this Section mustshall collect and record the following information for each cleaning solution used:

A) For each cleaning solution that is prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) The VOM content of each cleaning solvent in the cleaning solution;

iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

v) The VOM content of the as-used cleaning solution, with supporting calculations; and

vi) A calibration log for the automatic equipment, detailing periodic checks;

B) For each batch of cleaning solution that is not prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) Date, time of preparation, and each subsequent modification of the batch;

iii) The VOM content of each cleaning solvent in the cleaning solution;

iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and

v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are not prepared at the site but are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) ~~of this Part~~;

4) All sources complying with this Section under~~pursuant to the requirements of~~ subsection (b)(2) ~~of this Section~~ must~~shall~~ collect and record the following information for each cleaning solution used:

A) The name and identification of each cleaning solution;

B) Date, time of preparation, and each subsequent modification of the batch;

C) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with the applicable methods and procedures specified in Section 219.110 ~~of this Part~~;

D) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and

E) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with the applicable methods and procedures specified in Section 219.110 ~~of this Part~~;

5) All sources complying with this Section under~~pursuant to the requirements of~~ subsection (b)(3) ~~of this Section~~ must~~shall~~ comply with the following:

A) By January 1, 2012, or upon initial start-up of the source, whichever is later, and upon initial start-up of a new emissions control system, include in the certification required by subsection (e)(3) ~~of this Section~~ a declaration that the monitoring equipment required under subsection (f) ~~of this Section~~ has been properly installed and calibrated according to manufacturer's specifications;

B) If testing of an emissions control system is conducted under~~pursuant to~~ subsection (g)~~ of this Section~~, the owner or operator must~~shall~~, within 90 days after conducting such testing, submit a copy of all test results to the Agency and must~~shall~~ submit a certification to the Agency that includes the following:

i) A declaration that all tests and calculations necessary to demonstrate compliance with subsection (b)(3) ~~of this Section~~ have been properly performed;

ii) A statement whether the subject cleaning operation is or is not in compliance with subsection (b)(3)~~ of this Section~~;

iii) The operating parameters of the emissions control system during testing, as monitored in accordance with subsection (f)~~ of this Section~~;

C) Collect and record daily the following information for each cleaning operation subject to the requirements of subsection (b)(3) ~~of this Section~~:

i) Emissions control system monitoring data in accordance with subsection (f)~~ of this Section~~, as applicable;

ii) A log of operating time for the emissions control system, monitoring equipment, and associated cleaning equipment;

iii) A maintenance log for the emissions control system and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;

D) Maintain records documenting the use of good operating practices consistent with the equipment manufacturer's specifications for the cleaning equipment being used and the emissions control system equipment. At a minimum, these records must~~shall~~ include:

i) Records for periodic inspection of the cleaning equipment and emissions control system equipment with date of

inspection, individual performing the inspection, and nature of inspection;

ii) Records for repair of malfunctions and breakdowns with identification and description of incident, date identified, date repaired, nature of repair, and the amount of VOM released into the atmosphere as a result of the incident;

6) All sources complying with this Section under~~pursuant to the requirements of~~ subsection (b)(5) ~~of this Section~~ must~~shall~~ collect and record monthly the following information for each cleaning operation subject to ~~the requirements of~~ subsection (b)(5) ~~of this Section~~:

A) The name, identification, and volume of each VOM-containing cleaning solution as applied in each cleaning operation;

B) The volume of each fresh cleaning solvent used for cleaning coating, ink, adhesive, or resin manufacturing equipment;

C) The volume of cleaning solvent recovered for either offsite or onsite reuse or recycling for further use in the cleaning of coating, ink, adhesive, or resin manufacturing equipment;

7) The owner or operator of a source with cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii) or (a)(2)(C)(xvii), including sources exempt from the limitations of this Section because of the criteria in subsection (a)(1), must~~shall~~:

A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes a declaration that the source has cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii) or (a)(2)(C)(xvii), and a statement identifying each such cleaning operation and the exclusion applicable to each cleaning operation;

B) Collect and record the name, identification, and volume of each cleaning solvent as applied each day in each cleaning operation that falls under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii), or (a)(2)(C)(xvii); and

C) Notify the Agency in writing if the amount of cleaning solvent used in the cleaning of medical device and pharmaceutical manufacturing operations or of sterilization indicating ink application equipment at the source ever exceeds 5.7 liters (1.5

gallons) per day, or if the amount of aerosol cleaning products used at the source ever exceeds 4.7 liters (1.25 gallons) per day, within 30 days after the exceedance occurs;

8) The owner or operator of a source with cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix), including sources exempt from the limitations of this Section because of the criteria in subsection (a)(1), must~~shall~~:

A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes a declaration that the source has cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix), and a statement identifying each such cleaning operation and the exclusion applicable to each cleaning operation;

B) Collect and record the name identification, volume, and VOM content of each cleaning solvent as applied each month in each cleaning operation that falls under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix);

C) For cleaning operations that fall under the exclusion ~~set forth~~ in subsection (a)(2)(C)(xviii), collect and record each month information demonstrating that the exempt cleaning solvent is being used exclusively for the cleaning of plastic-based or vinyl-based substrates for use in the screen printing process when using UV curable ink and coating systems; and

D) For cleaning operations that fall under the exclusion ~~set forth~~ in subsection (a)(2)(C)(xix), collect and record each month information demonstrating that the exempt cleaning solvent is being used exclusively for production line performance testing of coatings that are in research and development and are not yet commercially used for the applications for which they are being tested;

9) All sources subject to ~~the requirements of~~ subsections (b) and (d) must~~of this Section shall~~ notify the Agency of any violation of subsection (b) or (d) by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation;

10) All records required by ~~this~~ subsection (e) must~~shall~~ be kept~~retained~~ by the source for at least three years and must~~shall~~ be made available to the Agency upon request.

f) Monitoring Requirements

1) If an afterburner is used to demonstrate compliance, the owner or operator of a source subject to subsection (b)(3) ~~subsection(b)(3)~~ must~~of this Section shall~~:

A) Install, calibrate, operate, and maintain temperature monitoring devices with an accuracy of 3 °C or 5 °F ~~3°C or 5°F~~ on the emissions control system in accordance with Section 219.105(d)(2) ~~of this Part~~ and in accordance with the manufacturer's specifications. Monitoring must~~shall~~ be performed at all times when the emissions control system is operating; and

B) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring devices, such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor;

2) If a carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to subsection (b)(3) must~~shall~~ use Agency and USEPA approved continuous monitoring equipment that is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use. The continuous monitoring equipment must~~shall~~ monitor the VOM concentration of each carbon adsorption bed or the exhaust of the bed next in sequence to be desorbed;

3) If an emissions control system other than an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to subsection (b)(3) must~~of this Section shall~~ install, maintain, calibrate, and operate such monitoring equipment as stated ~~set forth~~ in the owner's or operator's plan approved by the Agency and USEPA under~~pursuant to~~ subsection (b)(3).

g) Testing Requirements

1) Testing to demonstrate compliance with the requirements of this Section must~~shall~~ be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Section. The~~Such~~ testing must~~shall~~ be conducted at the expense of the owner or operator and the owner or operator must~~shall~~ notify the Agency in writing 30 days in advance of conducting the testing to allow the Agency to be present during the testing;

2) Testing to demonstrate compliance with the VOM content limitations in subsection (b)(1) ~~of this Section~~, and to determine the VOM content of cleaning solvents and cleaning solutions, must~~shall~~ be conducted as follows:

A) The applicable test methods and procedures specified in Section 219.105(a) must~~of this Part shall~~ be used; provided, however, Method 24, incorporated by reference in Section 219.112 ~~of this Part~~, must~~shall~~ be used to demonstrate compliance; or

B) The manufacturer's specifications for VOM content for cleaning solvents may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) ~~of this Part~~; provided, however, Method 24 must~~shall~~ be used to determine compliance. In the event of any inconsistency between a Method 24 test and the manufacturer's specifications, the Method 24 test must~~shall~~ govern;

3) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions must~~shall~~ be conducted in accordance with the applicable methods and procedures specified in Section 219.110 ~~of this Part~~;

4) For afterburners and carbon adsorbers, the methods and procedures of Section 219.105(d) through (f) must~~shall~~ be used for testing to demonstrate compliance with the requirements of subsection (b)(3) ~~of this Section~~, as follows:

A) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~;

B) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~;

C) To determine the VOM concentration of the exhaust stream entering and exiting the emissions control system, Method 25 or 25A, as appropriate, 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:

i) The allowable outlet concentration of VOM from the emissions control system is less than 50 ppmv, as carbon;

ii) The VOM concentration at the inlet of the emissions control system and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and

iii) Due to the high efficiency of the emissions control system, the anticipated VOM concentration at the emissions control system exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest mustshall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;

D) During testing, the cleaning equipment mustshall be operated at representative operating conditions and flow rates;

5) An owner or operator using an emissions control system other than an afterburner or carbon adsorber mustshall conduct testing to demonstrate compliance with the requirements of subsection (b)(3) of this Section as statedset forth in the owner's or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions underpursuant to subsection (b)(3).

(Source: Amended at_____, effective_____)

SUBPART F: COATING OPERATIONS

Section 219.204 Emission Limitations

Except as provided in Sections 219.205, 219.207, 219.208, 219.212, 219.215 and 219.216 of this Subpart, anno owner or operator of a coating line must notshall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. Except as otherwise provided in subsections (a), (c), (g), (h), (j), (l), (n), (o), and (q), and (r) of this Section, compliance with the emission limitations marked with an asterisk in this Section is required on and after March 15, 1996, and compliance with emission limitations not marked with an asterisk is required until March 15, 1996. The following emission limitations are expressed in

units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with this Subpart must be demonstrated through the applicable coating analysis test methods and procedures specified in Section 219.105(a) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(c) ~~of this Subpart~~ except where noted. (Note: The equation presented in Section 219.206 must~~of this Part shall~~ be used to calculate emission limitations for determining compliance by add-on controls, credits for transfer efficiency, emissions trades and cross-line averaging.) The emission limitations are as follows:

			kg/l	lb/gal
a)	Automobile or Light-Duty Truck Coating			
	1)	Prior to May 1, 2012:		
		A) Prime coat	0.14	(1.2)
			0.14*	(1.2)*
		B) Primer surface coat	1.81	(15.1)
			1.81*	(15.1)*

BOARD NOTE: The primer surface coat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation must~~shall~~ be based on the daily-weighted average from an entire primer surface operation. Compliance must~~shall~~ be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(A) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must~~shall~~ be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the primer surface limitation.)

		kg/l	lb/gal
C)	Topcoat	1.81	(15.1)
		1.81*	(15.1)*

BOARD NOTE: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation must~~shall~~ be based on the daily-weighted average from an entire topcoat operation. Compliance must~~shall~~ be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(A) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must~~shall~~ be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating

compliance with the protocol. Section 219.205 ~~of this Part~~ does not apply to the topcoat limitation.)

D)	Final repair coat	kg/l 0.58 0.58*	lb/gal (4.8) (4.8)*

2) On and after May 1, 2012, subject automobile and light-duty truck coating lines must~~shall~~ comply with the following limitations. These limitations must~~shall~~ not apply to materials supplied in containers with a net volume of 0.47 liters (16 oz) or less, or a net weight of 0.45 kg (1 lb) or less:

A) Electrodeposition primer (EDP) operations. For purposes of this subsection (a)(2)(A), "electrodeposition" means a water-borne dip coating process in which opposite electrical charges are applied to the substrate and the coating. The coating is attracted to the substrate due to the electrochemical potential difference that is created.

		kg VOM/l coating solids applied	lb VOM/gal coating solids applied
i)	When solids turnover ratio (R_T) is greater than or equal to 0.160	0.084	(0.7)
ii)	When R_T is greater than or equal to 0.040 and less than 0.160	$0.084 \times 350^{0.160-R_T}$	$(0.084 \times 350^{0.160-R_T} \times 8.34)$

B) Primer surfacer operations

		kg VOM/l coating solids deposited	lb VOM/gal coating solids deposited
i)	VOM content limitation	1.44	(12.0)

ii) Compliance with the limitation ~~set forth~~ in subsection (a)(2)(B)(i) must~~shall~~ be based on the daily-weighted average from an entire primer surfacer operation. Compliance must~~shall~~ be demonstrated in accordance with

the topcoat protocol referenced in Section 219.105(b)(1)(B) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must~~shall~~ be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the primer surfacer limitation.

C) Topcoat operations

		kg VOM/l coating solids deposited	lb VOM/gal coating solids deposited
i)	VOM content limitation	1.44	(12.0)

ii) Compliance with the limitation ~~set forth~~ in subsection (a)(2)(C)(i) must~~shall~~ be based on the daily-weighted average from an entire topcoat operation. Compliance must~~shall~~ be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must~~shall~~ be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the topcoat limitation.

D) Combined primer surfacer and topcoat operations

		kg VOM/l coating solids deposited	lb VOM/gal coating solids deposited
i)	VOM content limitation	1.44	(12.0)

ii) Compliance with the limitation ~~set forth~~ in subsection (a)(2)(D)(i) must~~shall~~ be based on the daily-weighted average from the combined primer surfacer and topcoat operations. Compliance must~~shall~~ be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to

demonstrate compliance mustshall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the combined primer surfacer and topcoat limitation.

E) Final repair coat operations

		kg/l coatings	lb/gal coatings
i)	VOM content limitation	0.58	(4.8)

ii) Compliance with the final repair operations limitation set forth in subsection (a)(2)(E)(i) mustshall be on an occurrence-weighted average basis, calculated in accordance with the equation below, in which clear coatings mustshall have a weighting factor of 2 and all other coatings mustshall have a weighting factor of 1. For purposes of this subsection (a)(2)(E)(ii), an "occurrence" is the application of the combination of coatings that constitute a final repair coat for a single automobile or light-duty truck. Section 219.205 does not apply to the final repair coat limitation.

$$VOM_{tot} = \frac{2VOM_{cc} + \sum_{i=1}^{n} VOM_i}{n+2}$$

where:

VOM_{tot} = Total VOM content of all coatings, as applied, on an occurrence weighted average basis, and used to determine compliance with this subsection (a)(2)(E).

i = Subscript denoting a specific coating applied.

n = Total number of coatings applied in the final repair operation, other than clear coatings.

VOM_{cc} = The VOM content, as applied, of the clear coat used in the final repair operation.

VOM_i = The VOM content of each coating used in the final repair operation, as applied, other than clear coatings.

F) Miscellaneous Materials. For reactive adhesives subject to this subsection (a)(2)(F), compliance must~~shall~~ be demonstrated in accordance with the methods and procedures set forth in appendix A to Subpart PPPP of 40 CFR 63, incorporated by reference in Section 219.112 ~~of this Part~~.

		kg/l	lb/gal
i)	Glass bonding primer	0.90	(7.51)
ii)	Adhesive	0.25	2.09)
iii)	Cavity wax	0.65	(5.42)
iv)	Trunk sealer	0.65	(5.42)
v)	Deadener	0.65	(5.42)
vi)	Gasket/gasket sealing material	0.20	(1.67)
vii)	Underbody coating	0.65	(5.42)
viii)	Trunk interior coating	0.65	(5.42)
ix)	Bedliner	0.20	(1.67)
x)	Weatherstrip adhesive	0.75	(6.26)
xi)	Lubricating wax/compound	0.70	(5.84)

b) Can Coating			kg/l	lb/gal
1)	Sheet basecoat and overvarnish			
	A)	Sheet basecoat	0.34 0.26*	(2.8) (2.2)*
	B)	Overvarnish	0.34 0.34	(2.8) (2.8)*
2)	Exterior basecoat and overvarnish		0.34 0.25*	(2.8) (2.1)*
3)	Interior body spray coat			

	A)	Two piece	0.51 0.44*	(4.2) (3.7)*
	B)	Three piece	0.51 0.51*	(4.2) (4.2)*
4)	Exterior end coat		0.51 0.51*	(4.2) (4.2)*
5)	Side seam spray coat		0.66 0.66*	(5.5) (5.5)*
6)	End sealing compound coat		0.44 0.44*	(3.7) (3.7)*

c)	Paper Coating		kg/l	lb/gal
1)	Prior to May 1, 2011:		0.28	(2.3)
2)	On and after May 1, 2011:		kg VOM/kg (lb VOM/lb) solids applied	kg VOM/kg (lb VOM/lb) coatings applied
	A)	Pressure sensitive tape and label surface coatings	0.20	(0.067)
	B)	All other paper coatings	0.40	(0.08)

3) The paper coating limitation ~~set forth~~ in ~~this~~ subsection (c) does~~shall~~ not apply to any owner or operator of any paper coating line on which flexographic, rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in Subpart H ~~of this Part~~. In addition, screen printing on paper is not regulated as paper coating, but is regulated under Subpart TT ~~of this Part~~. On and after May 1, 2011, the paper coating limitation ~~shall~~ also does not apply to coating performed on or in-line with any digital printing press, or to size presses and on-machine coaters on papermaking machines applying sizing or water-based clays.

d)	Coil Coating	kg/l 0.31 0.20*	lb/gal (2.6) (1.7)*
e)	Fabric Coating	0.35 0.28*	(2.9) (2.3)*

f)	Vinyl Coating			0.45 0.28*	(3.8) (2.3)*
g)	Metal Furniture Coating				
	1)	Prior to May 1, 2011:		kg/l	lb/gal
		A)	Air dried	0.34	(2.8)
		B)	Baked	0.28	(2.3)
	2)	On and after May 1, 2011:		kg/l (lb/gal) solids	kg/l (lb/gal) applied
		A)	General, One Component	0.275 (2.3)	0.40 (3.3)
		B)	General, Multi-Component		
			i) Air dried	0.340 (2.8)	0.55 (4.5)
			ii) Baked	0.360 (3.0)	0.61 (5.1)
		C)	Extreme High Gloss		
			i) Air dried	0.340 (2.8)	0.55 (4.5)
			ii) Baked	0.360 (3.0)	0.61 (5.1)
		D)	Extreme Performance		
			i) Air dried	0.420 (3.5)	0.80 (6.7)
			ii) Baked	0.360 (3.0)	0.61 (5.1)
		E)	Heat Resistant		
			i) Air dried	0.420	0.80

			(3.5)	(6.7)
	ii)	Baked	0.360 (3.0)	0.61 (5.1)
F)	Metallic		0.420 (3.5)	0.80 (6.7)
G)	Pretreatment Coatings		0.420 (3.5)	0.80 (6.7)
H)	Solar Absorbent			
	i)	Air dried	0.420 (3.5)	0.80 (6.7)
	ii)	Baked	0.360 (3.0)	0.61 (5.1)

3) On and after May 1, 2011, the limitations ~~set forth~~ in ~~this~~ subsection (g) do~~shall~~ not apply to stencil coatings, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, touch-up and repair coatings, or coating applications utilizing hand-held aerosol cans.

h) Large Appliance Coating

1)	Prior to May 1, 2011:		kg/l	lb/gal
	A)	Air dried	0.34	(2.8)
	B)	Baked	0.28	(2.3)
2)	On and after May 1, 2011:		kg/l (lb/gal)	kg/l (lb/gal) solids applied
	A)	General, One Component	0.275 (2.3)	0.40 (3.3)
	B)	General, Multi-Component		
	i)	Air dried	0.340 (2.8)	0.55 (4.5)
	ii)	Baked	0.275 (2.3)	0.40 (3.3)

C)	Extreme High Gloss			
	i)	Air dried	0.340 (2.8)	0.55 (4.5)
	ii)	Baked	0.360 (3.0)	0.61 (5.1)
D)	Extreme Performance			
	i)	Air dried	0.420 (3.5)	0.80 (6.7)
	ii)	Baked	0.360 (3.0)	0.61 (5.1)
E)	Heat Resistant			
	i)	Air dried	0.420 (3.5)	0.80 (6.7)
	ii)	Baked	0.360 (3.0)	0.61 (5.1)
F)	Metallic		0.420 (3.5)	0.80 (6.7)
G)	Pretreatment Coatings		0.420 (3.5)	0.80 (6.7)
H)	Solar Absorbent			
	i)	Air dried	0.420 (3.5)	0.80 (6.7)
	ii)	Baked	0.360	0.61

3) The limitations ~~set forth~~ in ~~this~~ subsection (h) do~~shall~~ not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 1 (1 quart) in any one rolling eight-hour period. On and after May 1, 2011, these limitations ~~shall~~ also do not apply to stencil coatings, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, touch-up and repair coatings, or coating applications utilizing hand-held aerosol cans.

		kg/l	lb/gal
i)	Magnet Wire Coating	0.20	(1.7)
		0.20*	(1.7)*
j)	Prior to May 1, 2012: Miscellaneous Metal Parts and Products Coating		
	1) Clear coating	0.52	(4.3)
		0.52*	(4.3)*
	2) Extreme performance coating		
	A) Air dried	0.42	(3.5)
		0.42*	(3.5)*
	B) Baked	0.42	(3.5)
		0.40*	(3.3)*
	3) Steel pail and drum interior coating	0.52	(4.3)
		0.52*	(4.3)*
	4) All other coatings		
	A) Air dried	0.42	(3.5)
		0.40*	(3.3)*
	B) Baked	0.36	(3.0)
		0.34*	(2.8)*
	5) Metallic Coating		
	A) Air dried	0.42	(3.5)
		0.42*	(3.5)*
	B) Baked	0.36	(3.0)
		0.36	(3.0)*

6) For purposes of subsection (j)(5)~~ of this Section~~, "metallic coating" means a coating which contains more than ¼ lb/gal of metal particles, as applied.

BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) ~~shall~~ apply to this category of coating.

		kg/l	lb/gal
k)	Heavy Off-Highway Vehicle Products Coating		

1)	Extreme performance prime coat	0.42 0.42*	(3.5) (3.5)*
2)	Extreme performance topcoat (air dried)	0.42 0.42*	(3.5) (3.5)*
3)	Final repair coat (air dried)	0.42 0.42*	(3.5) (3.5)*

4) All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j).

l) Wood Furniture Coating

1)	Limitations before March 15, 1998:		kg/l	lb/gal
	A)	Clear topcoat	0.67	(5.6)
	B)	Opaque stain	0.56	(4.7)
	C)	Pigmented coat	0.60	(5.0)
	D)	Repair coat	0.67	(5.6)
	E)	Sealer	0.67	(5.6)
	F)	Semi-transparent stain	0.79	(6.6)
	G)	Wash coat	0.73	(6.1)

BOARD NOTE: Prior to March 15, 1998, an owner or operator of a wood furniture coating operation subject to this Section must~~shall~~ apply all coatings, with the exception of no more than 37.8 l (10 gal) of coating per day used for touch-up and repair operations, using one or more of the following application systems: airless spray application system, air-assisted airless spray application system, electrostatic spray application system, electrostatic bell or disc spray application system, heated airless spray application system, roller coating, brush or wipe coating application system, dip coating application system or high volume low pressure (HVLP) application system.)

2) On and after March 15, 1998, wood furniture sealers and topcoats must comply with one of the limitations specified in subsections (l)(2)(A) through (E):

	kg VOM/kg solids	lb VOM/lb solids

A)	Topcoat		0.8	(0.8)
B)	Sealers and topcoats with the following limits:			
	i)	Sealer other than acid-cured alkyd amino vinyl sealer	1.9	(1.9)
	ii)	Topcoat other than acid-cured alkyd amino conversion varnish topcoat	1.8	(1.8)
	iii)	Acid-cured alkyd amino vinyl sealer	2.3	(2.3)
	iv)	Acid-cured alkyd amino conversion varnish topcoat	2.0	(2.0)

C) Meet the provisions of Section 219.215 ~~of this Subpart~~ for use of an averaging approach;

D) Achieve a reduction in emissions equivalent to the requirements of subsection (l)(2)(A) or (B) ~~of this Section~~, as calculated using Section 219.216 ~~of this Subpart~~; or

E) Use a combination of the methods specified in subsections (l)(2)(A) through (D) ~~of this Section~~.

3) Other wood furniture coating limitations on and after March 15, 1998:

		kg/l	lb/gal
A)	Opaque stain	0.56	(4.7)
B)	Non-topcoat pigmented coat	0.60	(5.0)
C)	Repair coat	0.67	(5.6)
D)	Semi-transparent stain	0.79	(6.6)
E)	Wash coat	0.73	(6.1)

4) Other wood furniture coating requirements on and after March 15, 1998:

A) A~~No~~ source subject to the limitations of subsection (l), (2) or (3) ~~of this Section~~ and utilizing one or more wood furniture coating spray booths must not~~shall~~ use strippable spray booth coatings containing more than 0.8 kg VOM/kg solids (0.8 lb VOM/lb solids), as applied.

B) Any source subject to the limitations of subsection (l), (2) or (3) must~~of this Section shall~~ comply with ~~the requirements of~~ Section 219.217 ~~of this Subpart~~.

C) Any source subject to the limitations of subsection (l)(2)(A) or (B) ~~of this Section~~ and utilizing one or more continuous coaters, must~~shall~~ for each continuous coater, use an initial coating which complies with the limitations of subsection (l)(2)(A) or (B) ~~of this Section~~. The viscosity of the coating in each reservoir must~~shall~~ always be greater than or equal to the viscosity of the initial coating in the reservoir. The owner or operator must~~shall~~:

i) Monitor the viscosity of the coating in the reservoir with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added;

ii) Collect and record the reservoir viscosity and the amount and weight of VOM per weight of solids of coating and solvent each time coating or solvent is added; and

iii) Maintain these records at the source for a period of three years.

m) Prior to May 1, 2012: Plastic Parts Coating: Automotive/Transportation

		kg/l	lb/gal
1) Interiors			
A) Baked			
i)	Color coat	0.49*	(4.1)*
ii)	Primer	0.46*	(3.8)*
B) Air dried			
i)	Color coat	0.38*	(3.2)*

	ii)	Primer	0.42*	(3.5)*
2)	Exteriors (flexible and non-flexible)			
	A)	Baked		
		i) Primer	0.60*	(5.0)*
		ii) Primer non-flexible	0.54*	(4.5)*
		iii) Clear coat	0.52*	(4.3)*
		iv) Color coat	0.55*	(4.6)*
	B)	Air dried		
		i) Primer	0.66*	(5.5)*
		ii) Clear coat	0.54*	(4.5)*
		iii) Color coat (red & black)	0.67*	(5.6)*
		iv) Color coat (others)	0.61*	(5.1)*
3)	Specialty			
	A)	Vacuum metallizing basecoats, texture basecoats	0.66*	(5.5)*
	B)	Black coatings, reflective argent coatings, air bag cover coatings, and soft coatings	0.71*	(5.9)*
	C)	Gloss reducers, vacuum metallizing topcoats, and texture topcoats	0.77*	(6.4)*
	D)	Stencil coatings, adhesion primers, ink pad coatings, electrostatic prep coatings, and resist coatings	0.82*	(6.8)*
	E)	Head lamp lens coatings	0.89*	(7.4)*

BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) ~~shall~~ apply to this category of coating.

			kg/l	lb/gal
n)	Prior to May 1, 2012: Plastic Parts Coating: Business Machine			
	1)	Primer	0.14*	(1.2)*
	2)	Color coat (non-texture coat)	0.28*	(2.3)*
	3)	Color coat (texture coat)	0.28*	(2.3)*
	4)	Electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings	0.48*	(4.0)*
	5)	Specialty Coatings		
		A) Soft coat	0.52*	(4.3)*
		B) Plating resist	0.71*	(5.9)*
		C) Plating sensitizer	0.85*	(7.1)*

BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) ~~shall~~ apply to this category of coating.

o) Flat Wood Paneling Coatings. On and after August 1, 2010, flat wood paneling coatings must~~shall~~ comply with one of the following limitations:

1) 0.25 kg VOM/l of coatings (2.1 lb VOM/gal coatings); or

2) 0.35 kg VOM/l solids (2.9 lb VOM/gal solids).

BOARD NOTE: The Board has omitted subsection (p) and adopted a subsection (q) in order to preserve consistent labeling with similar requirements in 35 Ill. Adm. Code 218.

q) Miscellaneous Metal Parts and Products Coatings and Plastic Parts and Products Coatings On and After May 1, 2012. On and after May 1, 2012, the owner or operator of a miscellaneous metal or plastic parts coating line must~~shall~~ comply with the limitations in ~~this~~ subsection (q). The limitations in ~~this~~ subsection (q) do~~shall~~ not apply to aerosol coating products, powder coatings, or primer sealants and ejection cartridge sealants used in ammunition manufacturing. Primer sealants and ejection cartridge sealants are~~shall instead be~~ regulated under Subpart TT ~~of this Part~~.

1) Metal Parts and Products. For purposes of ~~this~~ subsection (q)(1), "corrosion resistant basecoat" means a water-borne epoxy coating applied via an electrodeposition process to a metal surface prior to spray coating,

for the purpose of enhancing corrosion resistance. The limitations in ~~this~~ subsection (q)(1) do~~shall~~ not apply to stencil coats, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, magnetic data storage disk coatings, and plastic extruded onto metal parts to form a coating. The limitations in Section 219.219~~,~~ ~~however, shall~~ apply to these coatings unless specifically excluded ~~in Section 219.219~~.

		kg VOM/l coating solids applied	lb VOM/gal coating solids applied
A)	General one component coating		
	i) Air dried	0.34 (2.8)	0.54 (4.52)
	ii) Baked	0.28 (2.3)	0.40 (3.35)
B)	General multi-component coating		
	i) Air dried	0.34 (2.8)	0.54 (4.52)
	ii) Baked	0.28 (2.3)	0.40 (3.35)
C)	Camouflage coating	0.42 (3.5)	0.80 (6.67)
D)	Electric-insulating varnish	0.42 (3.5)	0.80 (6.67)
E)	Etching filler	0.42 (3.5)	0.80 (6.67)
F)	Extreme high-gloss coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)

G)	Extreme performance coating			
	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.36 (3.0)	0.61 (5.06)
H)	Heat-resistant coating			
	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.36 (3.0)	0.61 (5.06)
I)	High performance architectural Coating		0.42 (3.5)	0.80 (6.67)
J)	High temperature coating		0.42 (3.5)	0.80 (6.67)
K)	Metallic coating			
	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.36 (3.0)	0.61 (5.06)
L)	Military specification coating			
	i)	Air dried	0.34 (2.8)	0.54 (4.52)
	ii)	Baked	0.28 (2.3)	0.40 (3.35)
M)	Mold-seal coating		0.42 (3.5)	0.80 (6.67)
N)	Pan backing coating		0.42 (3.5)	0.80 (6.67)
O)	Prefabricated architectural coating: multi-component			

	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.28 (2.3)	0.40 (3.35)
P)	Prefabricated architectural coating: one-component			
	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.28 (2.3)	0.40 (3.35)
Q)	Pretreatment coating		0.42 (3.5)	0.80 (6.67)
R)	Repair coats and touch-up coatings			
	i)	Air dried	0.42 (3.5)	
	ii)	Baked	0.36 (3.01)	
S)	Silicone release coating		0.42 (3.5)	0.80 (6.67)
T)	Solar-absorbent coating			
	i)	Air dried	0.42 (3.5)	0.80 (6.67)
	ii)	Baked	0.36 (3.0)	0.61 (5.06)
U)	Vacuum-metalizing coating		0.42 (3.5)	0.80 (6.67)
V)	Drum coating, new, exterior		0.34 (2.8)	0.54 (4.52)
W)	Drum coating, new, interior		0.42 (3.5)	0.80 (6.67)

X)	Drum coating, reconditioned, exterior	0.42 (3.5)	0.80 (6.67)
Y)	Drum coating, reconditioned, interior	0.50 (4.2)	1.17 (9.78)
Z)	Ammunition sealants		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
AA)	Electrical switchgear compartment coatings		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
BB)	All other coatings		
	i) Air dried	0.40 (3.3)	0.73 (5.98)
	ii) Baked: primer/topcoat	0.34 (2.8)	0.54 (4.52)

2) Plastic Parts and Products: Miscellaneous. For purposes of this subsection (q)(2), miscellaneous plastic parts and products are plastic parts and products that are not subject to subsection (q)(3), (q)(4), (q)(5), or (q)(6) ~~of this Section~~. The limitations in subsection (q)(2) do~~shall~~ not apply to touch-up and repair coatings; stencil coats applied on clear or transparent substrates; clear or translucent coatings; coatings applied at a paint manufacturing facility while conducting performance tests on the coatings; any individual coating category used in volumes less than 189.2 liters (50 gallons) in any one calendar year, if the total usage of all such coatings does not exceed 756.9 liters (200 gallons) per calendar year per source and substitute compliant coatings are not available; reflective coatings applied to highway cones; mask coatings that are less than 0.5 mm thick (dried) if the area coated is less than 25 square inches; electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings;

and heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices if the total usage of all such coatings does not exceed 378.4 liters (100 gallons) per calendar year per source. The limitations in Section 219.219~~, however, shall~~ apply to these~~such~~ coatings unless specifically excluded. ~~in Section 219.219.)~~

		kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	General one component coating	0.28 (2.3)	0.40 (3.35)
B)	General multi-component	0.42 (3.5)	0.80 (6.67)
C)	Electric dissipating coatings and shock-free coatings	0.80 (6.7)	8.96 (74.7)
D)	Extreme performance (2-pack coatings)	0.42 (3.5)	0.80 (6.67)
E)	Metallic coating	0.42 (3.5)	0.80 (6.67)
F)	Military specification coating		
	i) 1-pack coatings	0.28 (2.3)	0.54 (4.52)
	ii) 2-pack coatings	0.42 (3.5)	0.80 (6.67)
G)	Mold-seal coating	0.76 (6.3)	5.24 (43.7)
H)	Multi-colored coating	0.68 (5.7)	3.04 (25.3)
I)	Optical coating	0.80 (6.7)	8.96 (74.7)
J)	Vacuum-metalizing coating	0.80 (6.7)	8.96 (74.7)

3) Plastic Parts and Products

Automotive/Transportation

			kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	High bake coatings − interior and exterior parts			
	i)	Flexible primer	0.54 (4.5)	1.39 (11.58)
	ii)	Non-flexible primer	0.42 (3.5)	0.80 (6.67)
	iii)	Basecoats	0.52 (4.3)	1.24 (10.34)
	iv)	Clear coat	0.48 (4.0)	1.05 (8.76)
	v)	Non-basecoat/clear coat	0.52 (4.3)	1.24 (10.34)
B)	Low bake/air dried coatings – exterior parts			
	i)	Primers	0.58 (4.8)	1.66 (13.80)
	ii)	Basecoat	0.60 (5.0)	1.87 (15.59)
	iii)	Clear coats	0.54 (4.5)	1.39 (11.58)
	iv)	Non-basecoat/clear coat	0.60 (5.0)	1.87 (15.59)
C)	Low bake/air dried coatings – interior parts			
	i)	Color coat	0.38 (3.2)	0.67 (5.66)
	ii)	Primer	0.42	0.80

		(3.5)	(6.67)
D)	Touchup and repair coatings	0.62 (5.2)	2.13 (17.72)
E)	Specialty		
	i) Vacuum metallizing basecoats	0.66 (5.5)	2.62 (21.8)
	ii) Vacuum metallizing topcoats	0.77 (6.4)	6.06 (49.1)

F) Red, yellow, and black coatings: Subject coating lines must~~shall~~ comply with a limit determined by multiplying the appropriate limit in subsections (q)(3)(A) through (q)(3)(C) ~~of this Section~~ by 1.15.

4) Plastic Parts and Products: Business Machine. The limitations of ~~this~~ subsection (q)(4) do~~shall~~ not apply to vacuum metallizing coatings, gloss reducers, texture topcoats, adhesion primers, electrostatic preparation coatings, stencil coats, and resist coats other than plating resist coats. The limitations in Section 219.219~~, however, shall~~ apply to these~~such~~ coatings unless specifically excluded ~~in Section 219.219~~.

		kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	Primers	0.35 (2.9)	0.57 (4.80)
B)	Topcoat	0.35 (2.9)	0.57 (4.80)
C)	Color coat (texture coat)	0.28 (2.3)	0.40 (4.80)
D)	Color coat (non-texture coat)	0.28 (2.3)	0.40 (4.80)
E)	Texture coats other than color texture coats	0.35 (2.9)	0.57 (4.80)
F)	EMI/RFI shielding coatings	0.48 (4.0)	1.05 (8.76)

G)	Fog coat	0.26 (2.2)	0.38 (3.14)
H)	Touchup and repair	0.35 (2.9)	0.57 (4.80)

5) Pleasure Craft Surface Coatings

		kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	Extreme high gloss coating – topcoat	0.60 (5.0)	1.88 (15.6)
B)	High gloss coating − topcoat	0.42 (3.5)	0.80 (6.7)
C)	Pretreatment wash primer	0.78 (6.5)	6.67 (55.6)
D)	Finish primer surfacer		
	Prior to January 1, 2014	0.60 (5.0)	1.88 (15.6)
	On and after January 1, 2014	0.42 (3.5)	0.80 (6.7)
E)	High build primer/surfacer	0.34 (2.8)	0.55 (4.6)
F)	Aluminum substrate antifoulant coating	0.56 (4.7)	1.53 (12.8)
G)	Other substrate antifoulant coating	0.40 (3.3)	0.73 (5.8)
H)	Antifouling Sealer/Tie Coat	0.42 (3.5)	0.80 (6.7)
I)	All other pleasure craft surface coating for metal or plastic	0.42 (3.5)	0.80 (6.7)

6) Motor Vehicle Materials

		kg/l (lb/gal) coatings
A)	Cavity wax	0.65 (5.42)
B)	Sealer	0.65 (5.42)
C)	Deadener	0.65 (5.42)
D)	Gasket/gasket sealing material	0.20 (1.67)
E)	Underbody coating	0.65 (5.42)
F)	Trunk interior coating	0.65 (5.42)
G)	Bedliner	0.20 (1.67)
H)	Lubricating wax/compound	0.70 (5.84)

r) Aerospace Facilities. On and after July~~January~~ 1, 2021, the owner or operator of an aerospace facility must comply with the coating limitations in this subsection (r). The limitations in this subsection (r) do not apply to the following activities in which coating of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and electronic parts and assemblies (except for coating of completed assemblies). The limitations in this subsection (r) also do not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. The coating limitations in subsection (r)(2) do not apply to aerosol coatings, Department of Defense classified coatings, or the use of separate formulations of aerospace specialty coatings in volumes of less than 50 gallons per year, subject to a maximum exemption of 200 gallons for all such formulations applied annually.

1) VOM Content Limitations for Primers, Topcoats, and Chemical Milling Maskants

		kg/l	lb/gal
A)	Aerospace primer	0.350	(2.9)
B)	Primer for general aviation rework facility	0.540	(4.5)
C)	Exterior primer for large commercial aircraft (components or fully assembled)	0.650	(5.4)
D)	Topcoat	0.420	(3.5)
E)	Topcoat for general aviation rework facility	0.540	(4.5)
F)	Self-priming topcoat for aerospace applications	0.420	(3.5)
G)	Self-priming topcoat for general aviation rework facility	0.540	(4.5)
H)	Chemical milling maskant, type I	0.622	(5.2)
I)	Chemical milling maskant, type II	0.160	(1.3)

2) VOM Content Limitations for Aerospace Specialty Coatings

		kg/l	lb/gal
A)	Ablative coating	0.600	(5.0)
B)	Adhesion promoter for aerospace applications	0.890	(7.4)
C)	Adhesive bonding primer cured above 250 degrees Fahrenheit	1.030	(8.6)
D)	Adhesive bonding primer cured at or below 250 degrees Fahrenheit	0.850	(7.1)
E)	Aerospace flexible primer	0.640	(5.3)
F)	Aerospace pretreatment coating	0.780	(6.5)

G)	Antichafe coating	0.660	(5.5)
H)	Bearing coating	0.620	(5.2)
I)	Bonding maskant	1.230	(10.3)
J)	Caulking and smoothing compounds	0.850	(7.1)
K)	Chemical agent-resistant coating	0.550	(4.6)
L)	Clear coating for aerospace applications	0.720	(6.0)
M)	Commercial exterior aerodynamic structure primer	0.650	(5.4)
N)	Commercial interior adhesive	0.760~~0.750~~	(6.3)
O)	Compatible substrate primer	0.780	(6.5)
P)	Corrosion prevention system	0.710	(5.9)
Q)	Critical use and line sealer maskant	1.020	(8.5)
R)	Cryogenic flexible primer	0.645~~0.650~~	(5.4)
S)	Cryoprotective coating	0.600	(5.0)
T)	Cyanoacrylate adhesive	1.020	(8.5)
U)	Dry lubricative material for aerospace applications	0.880~~0.870~~	(7.3)
V)	Electrostatic~~Elecrostatic~~ discharge and electromagnetic interference coating	0.800	(6.7)
W)	Elevated temperature Skydrol-resistant commercial primer	0.740	(6.2)
X)	Epoxy-polyamide topcoat	0.660	(5.5)
Y)	Extrudable, rollable, or brushable sealant for aerospace applications	0.280	(2.3)

Z)	Fire-resistant interior coating	0.800	(6.7)
AA)	Flight test coatings: missile or single use aircraft	0.420	(3.5)
BB)	Flight test coatings: all other	0.840	(7.0)
CC)	Fuel tank adhesive for aerospace applications	0.620	(5.2)
DD)	Fuel tank coating for aerospace applications	0.720	(6.0)
EE)	High temperature coating	0.850	(7.1)
FF)	Insulation covering	0.740	(6.2)
GG)	Intermediate release coating	0.750	(6.3)
HH)	Lacquer	0.830	(6.9)
II)	Metallized~~Metalized~~ epoxy coating	0.740	(6.2)
JJ)	Mold release coating for aerospace applications	0.780	(6.5)
KK)	Nonstructural adhesive for aerospace applications	0.360	(3.0)
LL)	Optical anti-reflective coating	0.750	(6.3)
MM)	Part marking aerospace coating	0.850	(7.1)
NN)	Radiation-effect or electric coating	0.800	(6.7)
OO)	Rain erosion-resistant coating	0.850	(7.1)
PP)	Rocket motor bonding adhesive	0.890	(7.4)
QQ)	Rocket motor nozzle coating	0.660	(5.5)
RR)	Rubber-based adhesive	0.850	(7.1)
SS)	Scale inhibitor	0.880~~0.870~~	(7.3)

TT)	Screen print ink for aerospace applications	0.840	(7.0)
UU)	Seal coat maskant	1.230	(10.3)
VV)	Sprayable sealant for aerospace applications	0.600	(5.0)
WW)	Silicone insulation material	0.850	(7.1)
XX)	Solid film lubricant	0.880~~0.870~~	(7.3)
YY)	Specialized function coating	0.890	(7.4)
ZZ)	Structural autoclavable adhesive for aerospace applications	0.060	(0.5)
AAA)	Structural nonautoclavable adhesive for aerospace applications	0.850	(7.1)
BBB)	Temporary protective coating for aerospace applications	0.320	(2.7)
CCC)	Thermal control coating for aerospace applications	0.800	(6.7)
DDD)	Wet fastener installation coating	0.675~~0.670~~	(5.6)
EEE)	Wing coating	0.850	(7.1)

(Source: Amended at_____, effective_____)

Section 219.205 Daily-Weighted Average Limitations

An~~No~~ owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ and complying by means of this Section must not~~shall~~ operate the subject coating line unless the owner or operator has demonstrated compliance with subsection (a), (b), (c), (d), (e), (f), (g), (h), (i), ~~or~~ (j), or (k) ~~of this Section~~ (depending upon the category of coating) through the applicable coating analysis test methods and procedures specified in Section 219.105(a) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(d) ~~of this Subpart~~:

a) An ~~No~~ owner or operator of a coating line subject to only one of the limitations from among Section 219.204(a)(1)(A), (a)(1)(D), (a)(2)(A), (a)(2)(E), (a)(2)(F), (c)(1), (d), (e), (f), (i), or (o) must not~~of this Subpart shall~~ apply coatings on any

such coating line, during any day, whose daily-weighted average VOM content exceeds the emission limitation to which the coatings are subject.

b) Prior to May 1, 2012, an~~no~~ owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 219.204(j) must not~~of this Subpart shall~~ apply coatings to miscellaneous metal parts or products on the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(j) ~~of this Subpart~~ during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content must~~shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(j) ~~of this Subpart~~, during the same day, the owner or operator must~~shall~~ have a site-specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

c) An~~No~~ owner or operator of a can coating line subject to the limitations of Section 219.204(b) must not~~of this Subpart shall~~ operate the subject coating line using a coating with a VOM content in excess of the limitations specified in Section 219.204(b) ~~of this Subpart~~ unless all of the following requirements are met:

1) An alternative daily emission limitation for the can coating operation, i.e., for all of the can coating lines at the source, must~~shall~~ be determined according to subsection (c)(2) ~~of this Section~~. Actual daily emissions must~~shall~~ never exceed the alternative daily emission limitation and must~~shall~~ be calculated by use of the following equation.

$$E_b = \sum_{i=1}^{n} V_i C_i$$

where:

E_d = Actual VOM emissions for the day in units of kg/day (lbs/day);

i = Subscript denoting a specific coating applied;

n = Total number of coatings applied in the can coating

operation, i.e., all can coating lines at the source;

V_i = Volume of each coating applied for the day in units of l/day (gal/day) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);

C_i = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM).

2) The alternative daily emission limitation (A_d) must~~shall~~ be determined for the can coating operation, i.e., for all of the can coating lines at the source, on a daily basis as follows:

$$A_d = \sum_{i=1}^{n} V_i L_i \frac{(D_i - C_i)}{(D_i - L_i)}$$

where:

A_d = The VOM emissions allowed for the day in units of kg/day (lbs/day);

i = Subscript denoting a specific coating applied;

n = Total number of surface coatings applied in the can coating operation;

C_i = The VOM content of each surface coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);

D_i = The density of VOM in each coating applied. For the purposes of calculating A_d, the density is 0.882 kg~~0.882kg~~ VOM/l
VOM (7.36 lbs VOM/gal VOM);

V_i = Volume of each surface coating applied for the day in units of l (gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);

L_i = The VOM emission limitation for each surface coating applied as specified in Section 219.204(b) ~~of this Subpart~~ in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the

definition of VOM).

d) An~~No~~ owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 219.204(k) must not~~of this Subpart shall~~ apply coatings to heavy off-highway vehicle products on the subject coating line unless the requirements of subsection (d)(1) or (d)(2) ~~of this Section~~ are met.

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(k) ~~of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal), the daily-weighted average VOM content must~~shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(k) ~~of this Subpart~~, during the same day, the owner or operator must~~shall~~ have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

e) An~~No~~ owner or operator of a wood furniture coating line subject to the limitations of Section 219.204(l)(1) or (l)(3) must not~~of this Subpart shall~~ apply coatings to wood furniture on the subject coating line unless the requirements of subsection (e)(1) or (e)(2) ~~of this Section~~, in addition to the requirements specified in the note to Section 219.204(l)(1)~~ of this Subpart~~, are met.

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(l)(1) or (l)(3) ~~of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.67 kg/l (5.6 lbs/gal)), the daily-weighted average VOM content must~~shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(l)(1) or (l)(3) ~~of this Subpart~~, during the same day, the owner or operator must~~shall~~ have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

f) Prior to May 1, 2012, an~~no~~ owner or operator of a plastic parts coating line subject to the limitations of Section 219.204(m) or (n) must not~~of this Subpart shall~~ apply coatings to business machine or automotive/transportation plastic parts

on the subject coating line unless the requirements of subsection (f)(1) or (f)(2) ~~of this Section~~ are met.

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(m) or (n) ~~of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content mustshall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(m) or (n) ~~of this Subpart~~, during the same day, the owner or operator mustshall have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

g) AnNo owner or operator of a metal furniture coating line subject to the limitations of Section 219.204(g) must notof this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (g)(1) or (g)(2) ~~of this Section~~ are met:

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(g) ~~of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.34 kg/l (2.8 lbs/gal)), the daily-weighted average VOM content mustshall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(g) ~~of this Subpart~~, during the same day, the owner or operator mustshall have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

h) AnNo owner or operator of a large appliance coating line subject to the limitations of Section 219.204(h) must notof this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (h)(1) or (h)(2) ~~of this Section~~ are met.

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(h) ~~of this Subpart~~, during the same day (e.g., all coatings used on

the line are subject to 0.34 kg/l (2.8 lbs/gal)), the daily-weighted average VOM content mustshall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(h) of this Subpart, during the same day, the owner or operator mustshall have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

i) On and after May 1, 2011, annо owner or operator of a paper coating line subject to the limitations of Section 219.204(c) must notof this Subpart shall apply coatings on the subject coating line unless the requirements in subsection (i)(1) or (i)(2) of this Section are met:

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(c) during the same day (e.g., all coatings used on the line are subject to 0.40 kg/kg solids (0.08 kg/kg coatings)), the daily-weighted average VOM content mustshall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(c) during the same day, the owner or operator mustshall have a site-specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

j) On and after May 1, 2012, annо owner or operator of a miscellaneous metal parts and products coating line, plastic parts or products coating line, pleasure craft surface coating line, or motor vehicle materials coating line subject to the limitations of Section 219.204(q) must notof this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (j)(1) or (j)(2) of this Section are met:

1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(q) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content mustshall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(q) ~~of this Subpart~~, during the same day, the owner or operator must~~shall~~ have a site specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

k) An owner or operator of an aerospace facility subject to the limitations of Section 219.204(r) must not apply coatings at the subject facility unless the requirements of subsection (k)(1) or (k)(2) are met:

1) For each averaging plan that involves multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(r), during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content must not exceed the coating VOM content limit corresponding to the category of coating used;

2) For each averaging plan that involves coatings subject to more than one numerical emission limitation in Section 219.204(r), during the same day, the owner or operator must have a site specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

(Source: Amended at_____, effective_____)

Section 219.207 Alternative Emission Limitations

a) Any owner or operator of a coating line subject to Section 219.204 ~~of this Subpart,~~ except coating lines subject to Section 219.204(q)(6), may comply with this Section, rather than with Section 219.204 ~~of this Subpart~~, if a capture system and control device are operated at all times the coating line is in operation and the owner or operator demonstrates compliance with subsection (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), ~~or~~ (m), or (n) ~~of this Section~~ (depending upon the source category) through the applicable coating analysis and capture system and control device efficiency test methods and procedures specified in Section 219.105 ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(e) ~~of this Subpart~~; and the control device is equipped with the applicable monitoring equipment specified in Section 219.105(d) ~~of this Part~~ and the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use. A capture system and control device, which does not demonstrate compliance with subsection (c), (d), (e), (f), (g), (h), (i), (j), (k), (l), ~~or~~ (m), or (n) ~~of this Section~~ may be used as an alternative to compliance with Section 219.204 ~~of this Subpart~~ only if the

alternative is approved by the Agency and approved by the USEPA as a SIP revision.

b) Alternative Add-On Control Methodologies

1) The coating line is equipped with a capture system and control device that provides 81 percent reduction in the overall emissions of VOM from the coating line and the control device has a 90 percent efficiency; or

2) The system used to control VOM from the coating line is demonstrated to have an overall efficiency sufficient to limit VOM emissions to no more than what is allowed under Section 219.204 ~~of this Subpart~~. Use of any control system other than an afterburner, carbon adsorption, condensation, or absorption scrubber system can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. The use of transfer efficiency credits can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. Baseline transfer efficiencies and transfer efficiency test methods must be approved by the Agency and the USEPA. Such overall efficiency is to be determined as follows:

A) Obtain the emission limitation from the appropriate subsection in Section 219.204 ~~of this Subpart~~;

B) Unless complying with an emission limitation in Section 219.204 that is already expressed in terms of weight of VOM per volume of solids, calculate "S" according to the equation in Section 219.206 ~~of this Subpart~~. For coating lines subject to an emission limitation in Section 219.204 that is already expressed in terms of weight of VOM per volume of solids, "S" is equal to such emission limitation;

C) Calculate the overall efficiency required according to Section 219.105(e) ~~of this Part~~. For the purposes of calculating this value, according to the equation in Section 219.105(e)(2) ~~of this Part~~, VOM_1 is equal to the value of "S" as determined in subsection (b)(2)(B) ~~of this Section~~. If the coating line is subject to an emission limitation in Section 219.204 ~~of this Subpart~~ that is already expressed in terms of weight of VOM per volume of solids, VOM_1 is equal to that emission limitation.

c) An~~No~~ owner or operator of a coating line subject to only one of the emission limitations from among Section 219.204(a)(1)(A), (a)(1)(D), (a)(2)(A),(a)(2)(E), (a)(2)(F), (c)(1), (d), (e), (f), or (i) ~~of this Subpart~~ and equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met. An~~No~~ owner or operator of a coating line subject to Section 219.204(a)(1)(B), (a) (1)(C),

(a)(2)(B), (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ and equipped with a capture system and control device must not~~shall~~ operate the coating line unless the owner or operator demonstrates compliance with such limitation in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(A) or (b)(1)(B), as applicable.

d) An~~No~~ owner or operator of a miscellaneous metal parts and products coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(j) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

e) An~~No~~ owner or operator of a heavy off-highway vehicle products coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(k) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

f) An~~No~~ owner or operator of a wood furniture coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(l) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.67 kg/l (5.6 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met. If compliance is achieved by meeting the requirements in subsection (b)(2) ~~of this Section~~, then the provisions in the note to Section 219.204(l) ~~of this Subpart~~ must also be met.

g) An~~No~~ owner or operator of a can coating line equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (g)(1) or (g)(2) ~~of this Section~~ are met.

1) An alternative daily emission limitation for the can coating operation, i.e., for all of the can coating lines at the source, must~~shall~~ be determined according to Section 219.205(c)(2) ~~of this Subpart~~. Actual daily emissions must not~~shall~~ ~~never~~ exceed the alternative daily emission limitation and must~~shall~~ be calculated by use of the following equation:

$$E_d = \sum_{i=1}^{n} V_i C_i \left(1 - F_i\right)$$

where:

E_d = Actual VOM emissions for the day in units of kg/day (lbs/day);

I = Subscript denoting the specific coating applied;

N = Total number of surface coatings as applied in the can coating operation;

V_i = Volume of each coating as applied for the day in units of l/day (gal/day) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);

C_i = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); and

F_i = Fraction, by weight, of VOM emissions from the surface coating, reduced or prevented from being emitted to the ambient air. This is the overall efficiency of the capture system and control device.

2) The coating line is equipped with a capture system and control device that provide 75 percent reduction in the overall emissions of VOM from the coating line and the control device has a 90 percent efficiency.

h) An~~No~~ owner or operator of a plastic parts coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(m) or (n) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

i) Prior to May 1, 2011, an~~no~~ owner or operator of a metal furniture coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(g) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.34 kg/l (2.8 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

j) Prior to May 1, 2011, an~~no~~ owner or operator of a large appliance coating line that applies one or more coatings during the same day, all of which are subject to

the same numerical emission limitation within Section 219.204(h) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.34 kg/l (2.8 lbs/gal)), and that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.

k) On and after May 1, 2011, an ~~no~~ owner or operator of a paper coating line, metal furniture coating line, or large appliance coating line that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless either:

1) The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the coating line; or

2) The owner or operator complies with the applicable limitation ~~set forth~~ in Section 219.204 ~~of this Subpart~~ by utilizing a combination of low-VOM coatings and a capture system and control device.

l) An~~No~~ owner or operator of a flat wood paneling coating line that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless either:

1) The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the coating line; or

2) The owner or operator of the flat wood paneling coating line complies with all requirements set forth in subsection (b)(2) ~~of this Section~~.

m) On and after May 1, 2011, an~~no~~ owner or operator of a miscellaneous metal parts and products coating line, plastic parts and products coating line, or pleasure craft surface coating line that is equipped with a capture system and control device must not~~shall~~ operate the subject coating line unless:

1) The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the coating line; or

2) The owner or operator of the coating line complies with all requirements ~~set forth~~ in subsection (b)(2) ~~of this Section~~.

n) An owner or operator of an aerospace facility that is equipped with a capture system and control device must not operate the subject aerospace coating operation unless:

1) The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the aerospace coating operation; or

2) The owner or operator of the aerospace coating operation complies with all requirements set forth in subsection (b)(2).

(Source: Amended at_____, effective_____)

Section 219.208 Exemptions From Emission Limitations

a) Exemptions for all coating categories except wood furniture coating and aerospace facilities. The limitations of this Subpart doshall not apply to coating lines within a source, that otherwise would be subject to the same subsection of Section 219.204 (because they belong to the same coating category, e.g., can coating), provided that combined actual emissions of VOM from all lines at the source subject to that subsection never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices. (For example, can coating lines within a source would not be subject to the limitations of Section 219.204(b) of this Subpart if the combined actual emissions of VOM from the can coating lines never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices.) Prior to May 2012, volatile organic material emissions from heavy off-highway vehicle products coating lines must be combined with VOM emissions from miscellaneous metal parts and products coating lines to determine applicability. On and after May 1, 2012, VOM emissions from heavy off-highway vehicle products coating lines mustshall be combined with VOM emissions from miscellaneous metal parts and products coating lines and plastic parts and products coating lines to determine applicability. Any owner or operator of a coating source mustshall comply with the applicable coating analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(a) of this Subpart if total VOM emissions from the subject coating lines are always less than or equal to 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices and, therefore, are not subject to the limitations of Section 219.204 of this Subpart. Once a category of coating lines at a source is subject to the limitations in Section 219.204 of this Part the coating lines are always subject to the limitations in Section 219.204 of this Subpart.

b) Applicability for Wood Furniture Coatingwood furniture coating

1) The limitations of this Subpart shall apply to a source's wood furniture coating lines if the source contains process emission units, not regulated by Subparts B, E, F (excluding Section 219.204(l) of this Subpart), H (excluding Section 219.405 of this Part), Q, R, S, T (excluding Section 219.486 of this Part), V, X, Y, Z or BB of this Part, which as a group both:

A) Have a maximum theoretical emissions of 91 Mg (100 tons) or more per calendar year of VOM if no air pollution control equipment were used;~~,~~ and

B) Are not limited to less than 91 Mg (100 tons) of VOM per calendar year if no air pollution control equipment were used, through production or capacity limitations contained in a federally enforceable permit or SIP revision.

2) The limitations of this Subpart ~~shall~~ apply to a source's wood furniture coating lines, on and after March 15, 1996, if the source contains process emission units, which as a group, have a potential to emit 22.7 Mg (25 tons) or more of VOM per calendar year and have not limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable operating permit or SIP revision, and that:

A) Are not regulated by Subparts B, E, F (excluding Section 219.204(l)~~ of this Subpart~~), H, Q, R, S, T (excluding Section 219.486 ~~of this Part~~), V, X, Y, Z or BB ~~of this Part~~; and

B) Are not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.

3) If a source ceases to fulfill the criteria of subsection (b)(1) or (b)(2) ~~of this Section,~~ the limitations of Section 219.204(l) ~~of this Subpart~~ ~~shall~~ continue to apply to any wood furniture coating line which was ever subject to the limitations of Section 219.204(l) ~~of this Subpart~~.

4) For the purposes of this subsection (b) ~~of this Section~~, an emission unit is~~shall be~~ considered to be regulated by a Subpart if it is subject to the limitations of that Subpart. An emission unit is not considered regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.

5) Any owner or operator of a wood furniture coating line to which the limitations of this Subpart are not applicable due to the criteria in this subsection (b) must~~of this Section shall~~, upon request by the Agency or the USEPA, submit records to the Agency and the USEPA within 30 calendar days from the date of the request that document that the coating line is exempt from the limitations of this Subpart.

c) On and after March 15, 1996, the limitations of this Subpart doshall not apply to touch-up and repair coatings used by a coating source described by Section 219.204(b), (d), (f), (g), (i), and (q)(5) of this Subpart; provided that the source-wide volume of thesesuch coatings used does not exceed 0.95 1 (1 quart) per eight-hour period or exceed 209 1/yr (55 gal/yr) for any rolling 12 month period. Recordkeeping and reporting for touch-up and repair coatings mustshall be consistent with subsection (d) of this Section.

d) Prior to May 1, 2012, the limitations of this Subpart doshall not apply to touch-up and repair coatings used by a coating source described by Section 219.204(j), (m), and (n) of this Subpart, provided that the source-wide volume of the coatings used does not exceed 0.95 l (1 quart) per eight-hour period or exceed 209 l/yr (55 gal/yr) for any rolling twelve month period. Recordkeeping and reporting for touch-up and repair coatings mustshall be consistent with subsection (e) of this Section.

e) On and after March 15, 1996, the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of Section 219.204(b), (d), (f), (g), (i), (j), (m), (n), and (q)(5) of this Subpart because of the provisions of subsection (c) or (d) of this Section mustshall:

1) Collect and record the name, identification number, and volume used of each touch-up and repair coating, as applied on each coating line, per eight-hour period and per month;

2) Perform calculations on a daily basis, and maintain at the source records of such calculations of the combined volume of touch-up and repair coatings used source-wide for each eight-hour period;

3) Perform calculations on a monthly basis, and maintain at the source records of such calculations of the combined volume of touch-up and repair coatings used source-wide for the month and the rolling 12 month period;

4) Prepare and maintain at the source an annual summary of the information required to be compiled under pursuant to subsections (e)(1) and (e)(2) of this Section on or before January 31 of the following year;

5) Maintain at the source for a minimum period of three years all records required to be kept under this subsection (e) and make thesuch records available to the Agency upon request;

6) Notify the Agency in writing if the use of touch-up and repair coatings at the source ever exceeds a volume of 0.95 1 (1 quart) per eight-hour period

or exceeds 209 l/yr (55 gal/yr) for any rolling 12 month period within 30 days after any such exceedance. The~~Such~~ notification must~~shall~~ include a copy of any records of the~~such~~ exceedance; and

7) "Touch-up and repair coatings" means, for purposes of 35 Ill. Adm. Code 219.208, any coating used to cover minor scratches and nicks that occur during manufacturing and assembly processes.

f) Applicability for Aerospace Facilities

1) Except as provided in subsection (f)(4~~6~~), the requirements of this Subpart apply to an aerospace facility's aerospace coating operations and cleaning operations on and after July~~January~~ 1, 2021, if the source contains process emission units that, as a group, have a potential to emit 22.7 Mg (25 tons) or more of VOM per calendar year and have not limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable permit or SIP revision.

2) If a source ceases to fulfill the criteria of subsection (f)(1), the requirements of this Subpart continue to apply to any aerospace facility that was ever subject to the requirements of this Subpart.

3) The limitations of Section 219.204(r)(2) do not apply to touch-up coatings at aerospace facilities, provided that the combined source-wide volume of the coatings that do not comply with the limitations of Section 219.204(r)(2) used at an aerospace facility does not exceed 2.85 l (3 quarts) per 24-hour period or exceed 209 l/yr (55 gal/yr) for any rolling 12-month period. Recordkeeping and reporting for touch-up coatings must be consistent with Section 219.211 (j)(2).

4) The requirements in Section 219.211(k) apply to an aerospace facility's aerospace coating operations and cleaning operations on and after July~~January~~ 1, 2021, if the source contains process emission units that, as a group, have a potential to emit less than 22.7 Mg (25 tons) of VOM per calendar year or have limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable ~~operating~~ permit or SIP revision.

(Source: Amended at_____, effective_____)

Section 219.211 Recordkeeping and Reporting

a) The VOM content of each coating and the efficiency of each capture system and control device must~~shall~~ be determined by the applicable test methods and

procedures specified in Section 219.105 ~~of this Part~~ to establish the records required under this Section.

b) Any owner or operator of a coating line that is exempted from the limitations of Section 219.204 ~~of this Subpart~~ because of Section 219.208(a) or (b) must~~of this Subpart shall~~ comply with the following:

1) For sources exempt from Section 219.208(a) ~~of this Subpart~~, by a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a coating line or group of coating lines referenced in subsection (b) must~~of this Section shall~~ certify to the Agency that the coating line or group of coating lines is exempt under the provisions of Section 219.208(a) ~~of this Subpart~~. The~~Such~~ certification must~~shall~~ include:

A) A declaration that the coating line is exempt from the limitations of Section 219.204 ~~of this Subpart~~ because of Section 219.208(a) ~~of this Subpart~~; and

B) Calculations that demonstrate that the combined VOM emissions from the coating line and all other coating lines in the same category never exceed 6.8 kg (15 lbs) per day before the application of capture systems and control devices. The following equation must~~shall~~ be used to calculate total VOM emissions:

$$T_e = \sum_{j=1}^{m} \sum_{i=1}^{n} \left(A_i B_i \right)_j$$

where:

T_e = Total VOM emissions from coating lines each day before the application of capture systems and control devices in units of kg/day (lbs/day);

m = Number of coating lines at the source that otherwise would be subject to the same subsection of Section 219.104 ~~of this Part~~ (because they belong to the same category, e.g., can coating);

j = Subscript denoting an individual coating line;

n = Number of different coatings as applied each day on each coating line;

i = Subscript denoting an individual coating;

A_i = Weight of VOM per volume of each coating (minus water

and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line in units of kg VOM/l (lbs VOM/gal); and

B_i = Volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line in units of l/day (gal/day). The instrument or method by which the owner or operator accurately measured or calculated the volume of each coating as applied on each coating line each day must ~~shall~~ be described in the certification to the Agency.

2) For sources exempt under Section 219.208(b) ~~of this Subpart~~, by March 15, 1998, or upon initial start-up, the owner or operator of a coating line or a group of coating lines referenced in subsection (b) must~~of this Section shall~~ certify to the Agency that the source is exempt under the provisions of Section 219.208(b) ~~of this Subpart~~. The~~Such~~ certification must~~shall~~ include:

A) A declaration that the source is exempt from the limitations of Section 219.204(l) ~~of this Subpart~~ because of Section 219.208(b) ~~of this Subpart~~; and

B) Calculations that demonstrate that the source meets the criteria of exemption because of Section 219.208(b) ~~of this Subpart~~.

3) For sources exempt under Section 219.208(a) ~~of this Subpart~~, on and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a coating line or group of lines referenced in this subsection (b) must~~shall~~ collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:

A) The name and identification number of each coating as applied on each coating line; and

B) The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line.

4) For sources exempt under Section 219.208(b) ~~of this Subpart~~, on and after March 15, 1998, the owner or operator of a coating line or group of coating lines referenced in this subsection (b) must~~shall~~ collect and record all of the following information for each coating line and maintain the information at the source for a period of three years:

A) The name and identification number of each coating as applied on each coating line; and

B) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied on each coating line on a monthly basis.

5) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a coating line or group of coating lines exempted from the limitations of Section 219.204 ~~of this Subpart~~ because of Section 219.208(a) must~~of this Subpart shall~~ notify the Agency of any record showing that total VOM emissions from the coating line or group of coating lines exceed 6.8 kg (15 lbs) in any day before the application of capture systems and control devices by sending a copy of such record to the Agency within 30 days after the exceedance occurs.

6) On and after March 15, 1998, any owner or operator of a source exempt from the limitations of Section 219.204(l) ~~of this Subpart~~ because of Section 219.208(b) ~~of this Subpart~~ must~~shall~~ notify the Agency if the source's VOM emissions exceed the limitations of Section 219.208(b) ~~of this Subpart~~ by sending a copy of calculations showing such an exceedance within 30 days after the change occurs.

c) Any owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ other than Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), ~~or~~ (a)(2)(D), or (r) ~~of this Subpart~~ and complying by means of Section 219.204 must~~of this Subpart shall~~ comply with the following:

1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance from an existing subject coating line from Section 219.205, Section 219.207, Section 219.215, or Section 219.216 ~~of this Subpart~~ to Section 219.204 ~~of this Subpart~~; the owner or operator of a subject coating line must~~shall~~ certify to the Agency that the coating line will be in compliance with Section 219.204 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification must~~shall~~ include:

A) The name and identification number of each coating as applied on each coating line;

B) The weight of VOM per volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line;

C) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line;

D) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line;

E) For coating lines subject to the limitations of Section 219.204(g)(2) or (h)(2) ~~of this Subpart~~, the application methods used to apply coatings on the subject coating line and the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line;

F) For coating lines subject to the limitations of Section 219.204(o) ~~of this Subpart~~, the weight of VOM per volume of coatings or solids, as applicable, for each coating as applied each day on each coating line;

G) For coating lines subject to the limitations of Section 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume of solids in each coating as applied each day on each coating line, and the solids turnover ratio of the EDP operation, with supporting calculations;

H) For coating lines subject to the limitations of Section 219.204(a)(2)(E), the weight of VOM per volume and volume of each coating used in the final repair coat operation, and the weight of VOM per volume of the final repair coat as applied, calculated on an occurrence weighted average basis;

I) For coating lines subject to the limitations of Section 219.204(q) ~~of this Subpart~~, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applicable, as applied each day on each coating line.

2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating line must~~shall~~ collect and record all of the following information each day, unless otherwise specified, for each coating line and maintain the information at the source for a period of three years:

A) The name and identification number of each coating as applied on each coating line;

B) The weight of VOM per volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line;

C) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line and certified product data sheets for each coating;

D) On and after March 15, 1998, for wood furniture coating spray booths subject to the limitation of Section 219.204(l)(4)(A) ~~of this Subpart,~~ the weight of VOM per weight of solids in each strippable spray booth coating as applied each day on each spray booth and certified product data sheets for each coating;

E) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line, and certified product data sheets for each coating;

F) For coating lines subject to the limitations of Section 219.204(g)(2) or 219.204(h)(2) ~~of this Subpart~~, the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line, and certified product data sheets for each coating;

G) For coating lines subject to the limitations of Section 219.204(o) ~~of this Subpart~~, the weight of VOM per volume of coatings or solids, as applicable, for each coating, as applied each day on each coating line;

H) For coating lines subject to the limitations of Section 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume of solids in each coating as applied each day on each coating line, certified product data sheets for each coating, and the solid turnover ratio for the EDP operation, calculated on a calendar monthly basis, with supporting calculations;

I) For coating lines subject to the limitations of Section 219.204(a)(2)(E), the weight of VOM per volume and volume of each coating used in the final repair coat operation, the weight of

VOM per volume of the final repair coat as applied, calculated on an occurrence weighted average basis, and certified product data sheets for each coating;

J) For coating lines subject to the limitations of Section 219.204(q) ~~of this Subpart~~, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applied, as applied each day on each coating line, and certified product data sheets for each coating.

3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line must~~shall~~ notify the Agency in the following instances:

A) Any record showing violation of Section 219.204 must~~of this Subpart shall~~ be reported by sending a copy of the~~such~~ record to the Agency within 30 days following the occurrence of the violation.

B) At least 30 calendar days before changing the method of compliance from Section 219.204 to Section 219.205 or Section 219.207 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (d)(1) or (e)(1), as applicable. Upon changing the method of compliance from Section 219.204 to Section 219.205 or Section 219.207 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (d) or (e) ~~of this Section~~, as applicable.

d) Any owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ and complying by means of Section 219.205 must~~of this Subpart shall~~ comply with the following:

1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance for an existing subject coating line from Section 219.204 or Section 219.207 to Section 219.205 ~~of this Subpart~~; the owner or operator of the subject coating line must~~shall~~ certify to the Agency that the coating line will be in compliance with Section 219.205 on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification must~~shall~~ include:

A) The name and identification number of each coating line which will comply by means of Section 219.205~~of this Subpart~~.

B) The name and identification number of each coating as applied on each coating line.

C) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

D) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line.

E) For coating lines subject to the limitations of Section 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume of solids in each coating as applied each day on each coating line.

F) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line.

G) For coating lines subject to the limitations of Section 219.204(g)(2) or (h)(2) ~~of this Subpart~~, the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line.

H) For coating lines subject to the limitations of Section 219.204(o) ~~of this Subpart~~, the weight of VOM per volume of coatings or solids, as applicable, for each coating, as applied each day on each coating line.

I) For coating lines subject to the limitations of Section 219.204(q) ~~of this Subpart~~, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applicable, as applied each day on each coating line.

J) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each coating line.

K) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) ~~of this Section~~.

L) An example of the format in which the records required in subsection (d)(2) ~~of this Section~~ will be kept.

2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating line must~~shall~~ collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:

A) The name and identification number of each coating as applied on each coating line.

B) The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line.

C) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line.

D) For coating lines subject to the limitations of Section 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume of solids in each coating as applied each day on each coating line.

E) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line.

F) For coating lines subject to the limitations of Section 219.204(g)(2) or (h)(2) ~~of this Subpart~~, the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line.

G) For coating lines subject to the limitations of Section 219.204(o) ~~of this Subpart~~, the weight of VOM per volume of coatings or solids, as applicable, for each coating, as applied each day on each coating line.

H) For coating lines subject to the limitations of Section 219.204(q) ~~of this Subpart~~, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applicable, as applied each day on each coating line.

I) The daily-weighted average VOM content of all coatings as applied on each coating line as defined in Section 219.104 ~~of this Part~~.

3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line must~~shall~~ notify the Agency in the following instances:

A) Any record showing violation of Section 219.205 ~~of this Subpart~~ must~~shall~~ be reported by sending a copy of the~~such~~ record to the Agency within 30 days following the occurrence of the violation.

B) At least 30 calendar days before changing the method of compliance with this Subpart from Section 219.205 to Section 219.204 or Section 219.207 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (c)(1) or (e)(1) ~~of this Section~~, as applicable. Upon changing the method of compliance with this Subpart from Section 219.205 to Section 219.204 or Section 219.207 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (c) or (e) ~~of this Section~~, as applicable.

e) Any owner or operator of a coating line subject to the limitations of Section 219.207 and complying by means of Section 219.207(c), (d), (e), (f), (g), (h), or (k), (l), (m), or (n) must~~of this Subpart shall~~ comply with the following:

1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance for an existing coating line from Section 219.204 or Section 219.205 to Section 219.207 ~~of this Subpart~~, the owner or operator of the subject coating line must~~shall~~ perform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject coating line will be in compliance with Section 219.207 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date.

2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating line must~~shall~~ collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:

A) The weight of VOM per volume of coating solids as applied each day on each coating line, if complying with~~pursuant to~~ Section 219.207(b)(2) ~~of this Subpart~~.

B) Control device monitoring data.

C) A log of operating time for the capture system, control device, monitoring equipment and the associated coating line.

D) A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.

3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line must~~shall~~ notify the Agency in the following instances:

A) Any record showing violation of Section 219.207 must~~of this Subpart shall~~ be reported by sending a copy of the~~such~~ record to the Agency within 30 days following the occurrence of the violation.

B) At least 30 calendar days before changing the method of compliance with this Subpart from Section 219.207 to Section 219.204 or Section 219.205 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (c)(1) or (d)(1) ~~of this Section~~, respectively. Upon changing the method of compliance with this Subpart from Section 219.207 to Section 219.204 or Section 219.205 ~~of this Subpart~~, the owner or operator must~~shall~~ comply with all requirements of subsection (c) or (d) ~~of this Section~~, respectively.

f) Any owner or operator of a primer surfacer operation or topcoat operation, or combined primer surfacer and topcoat operation, subject to the limitations of Section 219.204(a)(1)(B), (a)(1)(B), (a)(2)(C), or (a)(2)(D) must~~of this Subpart shall~~ comply with the following:

1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating operation, the owner or operator of a subject coating operation must~~shall~~ certify to the Agency that the operation will be in compliance with Section 219.204 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification must~~shall~~ include:

A) The name and identification number of each coating operation that will comply by means of Section 219.204(a)(1)(B),(a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ and the name and identification number of each coating line in each coating operation.

B) The name and identification number of each coating as applied on each coating line in the coating operation.

C) The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

D) The transfer efficiency and control efficiency measured for each coating line.

E) Test reports, including raw data and calculations documenting the testing performed to measure transfer efficiency and control efficiency.

F) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each coating line.

G) The method by which the owner or operator will create and maintain records each day as required in subsection (f)(2) ~~of this Section~~.

H) An example format for presenting the records required in subsection (f)(2) ~~of this Section~~.

2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating operation must~~shall~~ collect and record all of the following information each day for each topcoat or primer surfacer coating operation and maintain the information at the source for a period of three years:

A) All information necessary to demonstrate compliance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and to calculate the daily-weighted average VOM emissions from the coating operations in kg/l (lbs/gal) of coating solids deposited in accordance with the proposal submitted, and approved under ~~pursuant to~~ Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ including:

i) The name and identification number of each coating as applied on each coating operation.

ii) The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating operation.

B) If a control device or devices are used to control VOM emissions, control device monitoring data; a log of operating time for the capture system, control device, monitoring equipment and the associated coating operation; and a maintenance log for the capture system, control device and monitoring equipment, detailing all routine and non-routine maintenance performed including dates and duration of any outages.

3) On and after a date consistent with Section 219.106 ~~of this Part~~ or on and after the initial start-up date, the owner or operator of a subject coating operation must~~shall~~ determine and record the daily VOM emissions in kg/l (lbs/gal) of coating solids deposited in accordance with the proposal submitted and approved under~~pursuant to~~ Section 219.204 (a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ within 10 days from the end of the month and maintain this information at the source for a period of three years.

4) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating operation must~~shall~~ notify the Agency in the following instances:

A) Any record showing a violation of Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) must~~of this Subpart shall~~ be reported by sending a copy of the~~such~~ record to the Agency within 15 days from the end of the month in which the violation occurred.

B) The owner or operator must~~shall~~ notify the Agency of any change to the operation at least 30 days before the change is effected. The Agency must~~shall~~ determine whether or not compliance testing is required. If the Agency determines that compliance testing is required, then the owner or operator must~~shall~~ submit a testing proposal to the Agency within 30 days and test within 30 days after the approval of the proposal by the Agency and USEPA.

g) On and after a date consistent with Section 219.106(c) ~~of this Part~~, or on and after the initial start-up date, whichever is later, the owner or operator of a coating line subject to the requirements of Section 219.218 must~~of this Subpart shall~~ comply with the following:

1) By May 1, 2011, or upon initial start-up, whichever is later, submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Section 219.218 ~~of this Subpart~~;

2) Notify the Agency of any violation of Section 219.218 ~~of this Subpart~~ by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation; and

3) Maintain at the source all records required by this subsection (g) for a minimum of three years from the date the document was created and make those records available to the Agency upon request.

h) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, whichever is later, the owner or operator of a coating line subject to the requirements of Section 219.219, except aerospace facilities, must~~of this Subpart shall~~ comply with the following:

1) By May 1, 2012, or upon initial start-up, whichever is later, submit a certification to the Agency that includes:

A) A description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Section 219.219 ~~of this Subpart~~;

B) For sources subject to Section 219.219(a)(6), the work practices plan specified in that Section;

C) For sources subject to Section 219.219(b)(6), the application methods used to apply coatings on the subject coating line;

2) Notify the Agency of any violation of Section 219.219 ~~of this Subpart~~ by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation; and

3) Maintain at the source all records required by this subsection (h) for a minimum of three years from the date the document was created and make those records available to the Agency upon request.

i) On and after a date consistent with Section 219.106(d) ~~of this Part~~, or on and after the initial start-up date, whichever is later, the owner or operator of a flat wood paneling coating line subject to the requirements in Section 219.217 must~~of this Subpart shall~~ comply with the following:

1) By August 1, 2010, or upon initial start-up, whichever is later, submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Section 219.217(c) and (d) ~~of this Subpart~~; and

2) Notify the Agency of any violation of Section 219.217 ~~of this Subpart~~ by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation.

j) On and after July~~January~~ 1, 2021, the owner or operator of an aerospace facility subject to the requirements of this Subpart under Section 219.208(f)(1) must comply with the following:

1) Each owner or operator using coatings listed in Section 219.204(r) must:

A) Maintain a current list of coatings in use, with category and VOM content as applied; and

B) Record coating usage on an annual basis.

2) Each owner or operator using touch-up coatings that do not meet the limitations of Section 219.204(r)(2) must:

A) Collect and record the name, identification number, and volume used of each touch-up coating that does not meet the limitations of Section 219.204(r)(2), as applied in each aerospace coating operation, per 24-hour period and per month;

B) Perform calculations on a daily basis, and maintain at the source records of those calculations, of the combined volume of touch-up coatings that do not meet the limitations of Section 219.204(r)(2) used source-wide for each 24-hour period;

C) Perform calculations on a monthly basis, and maintain at the source records of those calculations, of the combined volume of touch-up coatings that do not meet the limitations of Section 219.204(r)(2) used source-wide for the month and the rolling 12-month period;

D) Prepare and maintain at the source an annual summary of the information required to be compiled under subsections (j)(2)(A), (j)(2)(B), and (j)(2)(C) on or before January 31 of the following year;

E) Maintain at the source for a minimum period of three years all records required to be kept under this subsection (j)(2) and make those records available to the Agency upon request; and

F) Notify the Agency in writing, within 30 days after any exceedance, if the combined use of touch-up coatings that do not meet the

limitations of Section 219.204(r)(2) at the source ever exceeds a volume of 2.85 l (3 quarts) per 24-hour period or exceeds 209 l/yr (55 gal/yr) for any rolling 12-month period. The notification must include a copy of any records of the exceedance.

3) Each owner or operator using cleaning solvents required by Section 219.219(e) or (g) must:

A) For aqueous and semiaqueous hand-wipe cleaning solvents, maintain a list of materials used, with corresponding water contents;

B) For vapor pressure compliant hand-wipe cleaning solvents:

i) Maintain a current list of cleaning solvents in use with their respective vapor pressures or, for blended solvents, VOM composite vapor pressures; and

ii) Record cleaning solvent usage on an annual basis; and

C) For cleaning solvents with a vapor pressure greater than 45 mmHg used in exempt hand-wipe cleaning operations:

i) Maintain a list of exempt hand-wipe cleaning processes; and

ii) Record cleaning solvent usage on an annual basis.

4) Each owner or operator using control equipment under Section 219.207(n) must meet all applicable testing, monitoring, and recordkeeping requirements of Section 219.105(c), (d), and (e).

5) By July~~January~~ 1, 2021, or upon initial start-up, whichever is later, the owner or operator of an aerospace facility must submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements of Section 219.219(e) and (g).

6) Each owner and operator of an aerospace facility must notify the Agency of any violation of this Part by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation.

k) Exempt Aerospace Facilities

1) For aerospace facilities that are exempt under Section 219.208(f)(1), by July~~January~~ 1, 2021, or upon initial start-up, the owner or operator of an aerospace facility must certify to the Agency that the source is exempt under that subsection. The certification must include:

A) A declaration that the source is exempt under Section 219.208(f)(1); and

B) Calculations that demonstrate that the source meets the criteria for exemption.

2) For sources exempt under Section 219.208(f)(1), on and after July~~January~~ 1, 2021, the owner or operator of an aerospace facility must collect and record all of the following information for each aerospace coating operation and cleaning operation, as applicable, and maintain the information at the source for a period of three years. The owner or operator must, upon request by the Agency or USEPA, submit the information to the Agency and USEPA within 30 calendar days from the date of the request, along with any other documentation necessary to demonstrate that the aerospace facility is exempt from the requirements of this Subpart:

A) The name and identification number of each coating as applied and cleaning solvent used; and

B) The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) applied and cleaning solvent used on a monthly basis.

3) On and after July~~January~~ 1, 2021, any owner or operator of an aerospace facility exempt under Section 219.208(f)(1) must notify the Agency if the source's VOM emissions exceed the criteria in Section 219.208(f)(1) by sending a copy of calculations showing the exceedance within 30 days after the exceedance occurs.

(Source: Amended at_____, effective_____)

Section 219.219 Work Practice Standards for Aerospace Facilities, Automobile and Light-Duty Truck Assembly Coatings, and Miscellaneous Metal and Plastic Parts Coatings

a) Every owner or operator of a coating line subject to the requirements of Section 219.204(a)(2) must~~of this Subpart shall~~:

1) Store all VOM-containing coatings, thinners, coating-related waste materials, cleaning materials, and used shop towels in closed containers;

2) Ensure that mixing and storage containers used for VOM-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing those materials;

3) Minimize spills of VOM-containing coatings, thinners, and coating-related waste materials;

4) Convey VOM-containing coatings, thinners, and coating-related waste materials from one location to another in closed containers or pipes;

5) Minimize VOM emissions from cleaning of storage, mixing, and conveying equipment;

6) Develop and implement a work practice plan to minimize VOM emissions from cleaning and from purging of equipment associated with coating lines subject to the limitations in Section 219.204(a)(2). The plan mustshall specify practices and procedures that the source will follow to ensure that VOM emissions from the operations listed in this subsection (a)(6) are minimized. If the owner or operator of the subject coating line has already implemented a work practice plan for the coating line underpursuant to Subpart IIII of 40 CFR 63, incorporated by reference in Section 219.112 of this Part, the owner or operator may revise the plan as necessary to comply with this Section.

A) Vehicle body wiping;

B) Coating line purging;

C) Flushing of coating systems;

D) Cleaning of spray booth grates, walls, and equipment; and

F) Cleaning of external spray booth areas.

b) Except as provided in subsection (c) of this Section, every owner or operator of a coating line described in Section 219.204(q) mustof this Subpart shall:

1) Store all VOM-containing coatings, thinners, coating-related waste materials, cleaning materials, and used shop towels in closed containers;

2) Ensure that mixing and storage containers used for VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing these materials;

3) Minimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials;

4) Convey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes;

5) Minimize VOC emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers; and

6) Apply all coatings using one or more of the following application methods:

A) Electrostatic spray;

B) High volume low pressure (HVLP) spray;

C) Flow coating. For the purposes of this subsection (b)(6)(C), flow coating means a non-atomized technique of applying coating to a substrate with a fluid nozzle with no air supplied to the nozzle;

D) Roll coating;

E) Dip coating, including electrodeposition. For purposes of this subsection (b)(6)(E), electrodeposition means a water-borne dip coating process in which opposite electrical charges are applied to the substrate and the coating. The coating is attracted to the substrate due to the electrochemical potential difference that is created;

F) Airless spray;

G) Air-assisted airless spray; or

H) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if the method is approved in writing by the Agency.

c) Notwithstanding subsection (b) ~~of this Section~~, the application method limitations in subsection (b)(6) do~~shall~~ not apply to the following:

1) Coating lines complying with Section 219.207(m)(1);

2) For metal parts and products coating operations: touch-up coatings, repair coatings, textured finishes, stencil coatings, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, magnetic data storage disk coatings, and plastic extruded onto metal parts to form a coating;

3) For pleasure craft surface coating operations: extreme high gloss coatings;

4) For plastic parts and products coating operations: airbrush operations using 18.9 liters (5 gallons) or less of coating per year.

5) For ammunition sealant operations: cap sealants and mouth waterproofing sealants.

d) Subsections (e) and (g) do not apply to the following activities in which cleaning of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and cleaning of electronic parts and assemblies (except for cleaning of completed assemblies). Subsections (e) and (g) also do not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. Subsections (e) and (g) also do not apply to aqueous cleaning solvents.

e) Except as provided in subsections (d) and (f), every owner or operator of an aerospace facility must:

1) Ensure that all fresh and used cleaning solvents, except semi-aqueous cleaning solvents, used in solvent cleaning operations are stored in containers that must be kept closed at all times except when filling or emptying;

2) Ensure that mixing and storage containers used for VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing these materials;

3) Ensure that cloth and paper, or other absorbent applicators, moistened with cleaning solvents are stored in closed containers (cotton-tipped swabs used for very small cleaning operations are exempt);

4) Minimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials;

5) Convey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes;

6) Minimize VOM emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers; and

7) Apply all coatings using one or more of the following application methods:

A) Electrostatic spray;

B) High volume low pressure (HVLP) spray;

C) Flow coating. For the purposes of this subsection (e)(7)(C), flow coating means a non-atomized technique of applying coating to a substrate with a fluid nozzle with no air supplied to the nozzle;

D) Roll coating;

E) Dip coating, including electrodeposition. For purposes of this subsection (e)(7)(E), electrodeposition means a water-borne dip coating process in which opposite electrical charges are applied to the substrate and the coating. The coating is attracted to the substrate due to the electrochemical potential difference that is created;

F) Brush coating;

G) Cotton-tipped swab application; or

H) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if the method is approved in writing by the Agency.

f) The application method limitations in subsection (e)(7) do not apply to the following:

1) Any situation that normally requires the use of an airbrush or an extension on the spray gun to properly reach limited access spaces;

2) The application of aerospace specialty coatings;

3) The application of coatings that contain fillers that adversely affect atomization with HVLP spray guns and that the Agency has determined cannot be applied by any of the application methods specified in subsection (e)(7);

4) The application of coatings that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 inch) and that the Agency has

determined cannot be applied by any of the application methods specified in subsection (e)(7);

5) The use of airbrush application methods for stenciling, lettering, and other identification markings;

6) The use of hand-held spray can application methods; and

7) Application of touch-up and repair coatings.

g) Cleaning Operations at Aerospace Facilities

1) Hand-wipe Cleaning at Aerospace Facilities. Hand-wipe cleaning (excluding cleaning of spray gun equipment performed in accordance with subsection (g)(3)) must use cleaning solvents that meet the definition of aqueous cleaning solvent or have a composite vapor pressure of 45 mmHg (24.1 in. H_2 O) or less at 20 °C (68 °F) ~~20°C (68°F)~~.

2) The following cleaning operations are exempt from the requirements of subsection (g)(1):

A) Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;

B) Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, hydrazine);

C) Cleaning and surface activation prior to adhesive bonding;

D) Cleaning of electronic~~electronics~~ parts and assemblies containing electronic~~electronics~~ parts;

E) Cleaning of aircraft fluid systems and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;

F) Cleaning of fuel cells, fuel tanks, and confined spaces;

G) Surface cleaning of solar cells, coated optics, and thermal control surfaces;

H) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used on the interior of the aircraft;

I) Cleaning of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;

J) Cleaning of aircraft transparencies, polycarbonate, or glass substrates;

K) Cleaning and solvent usage associated with research and development, quality control, or laboratory testing;

L) Cleaning operations, using nonflammable liquids, conducted within 5 feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and

M) Cleaning operations identified as essential uses under the Montreal Protocol for which the USEPA Administrator has allocated essential use allowances or exemptions in 40 CFR 82.4.

3) Spray Gun Cleaning at Aerospace Facilities. Spray gun cleaning, in which spray guns are used for the application of coatings or any other materials that require the spray guns to be cleaned, must be cleaned by one or more of the following methods:

A) Enclosed System.

i) Clean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning must consist of forcing solvent through the gun.

ii) Each owner or operator using an enclosed spray gun cleaner must visually inspect the seals and all other potential sources of leaks at least once per month. Each inspection must occur while the spray gun cleaner is in operation. If leaks are found in the enclosed system, the enclosed cleaner must be shut down until the leak is repaired or its use is permanently discontinued.

B) Nonatomized cleaning. Clean the spray gun by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. Atomizing air must not be used. Direct the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use.

C) Disassembled spray gun cleaning. Disassemble the spray gun and clean the components by hand in a vat, which must remain closed at all times except when in use. Alternatively, soak the components in a vat, which must remain closed during the soaking period and when not inserting or removing components.

D) Atomizing cleaning. Clean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.

4) Flush Cleaning at Aerospace Facilities. For cleaning solvents used in flush cleaning of parts, assemblies, and coating line components, the used cleaning solvent (except for semiaqueous cleaning solvents) must be emptied into an enclosed container or collection system that is kept closed when not in use or captured with wipers provided they comply with the housekeeping requirements of subsections (e)(1) through (3). Aqueous cleaning solvents are exempt from these requirements.

(Source: Amended at_____, effective_____)