

ILLINOIS POLLUTION CONTROL BOARD
March 18, 2010

IN THE MATTER OF:)
)
REASONABLY AVAILABLE CONTROL) R10-10
TECHNOLOGY (RACT) FOR VOLATILE) (Rulemaking - Air)
ORGANIC MATERIAL EMISSIONS FROM)
GROUP III CONSUMER & COMMERCIAL)
PRODUCTS: PROPOSED AMENDMENTS)
TO 35 ILL. ADM. CODE 218 AND 219)

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by A.S. Moore)

Today the Board adopts its final order in this rulemaking amending its air pollution regulations. *See* 35 Ill. Adm. Code 218, 219.

On October 23, 2009, the Illinois Environmental Protection Agency (Agency or Illinois EPA or IEPA) initiated this proceeding by filing a proposal under provisions including the “fast-track” rulemaking authority of Section 28.5 of the Environmental Protection Act (Act). *See* 415 ILCS 5/10, 27 (2008); Public Act 96-0308, eff. Aug. 11, 2009 (P.A. 96-0308) (reenacting repealed Section 28.5). The Agency proposed volatile organic material (VOM) emission controls in response to control techniques guidelines (CTG) issued by the United States Environmental Protection Agency (USEPA) for the following Group III Consumer and Commercial Product Categories: paper, film, and foil coatings; metal furniture coatings; and large appliance coatings.

On November 5, 2009, the Board adopted its first-notice opinion and order in this proceeding without commenting on the substantive merits of the Agency’s proposal. *See* 33 Ill. Reg. 16399, 16460 (Nov. 20, 2009); P.A. 96-0308 (subsection (e)). On February 4, 2010, the Board adopted its second-notice opinion and order. At its meeting on March 9, 2010, the Joint Committee on Administrative Rules (JCAR) considered the Board’s second-notice proposal and issued its Certificate of No Objection.

In this opinion, the Board first provides the procedural history of this rulemaking and briefly summarizes the background of federal VOM regulation in these product categories. The Board then describes the processes addressed in this rulemaking and the sources of VOM emissions from them. Next, the Board summarizes current regulations governing those processes and provides an overview of the Agency’s proposal. The opinion then addresses the economic reasonableness and technical feasibility of the proposal. The Board then summarizes the adopted rules on a section-by-section basis. Finally, the Board’s order directs the Clerk to file the adopted amendments with the Secretary of State for publication in the *Illinois Register*.

PROCEDURAL HISTORY

On October 23, 2009, the Agency filed a rulemaking proposal to amend Parts 218 and 219 of the Board's air pollution regulations (Prop. 218 and Prop. 219, respectively). The Agency filed its proposal under provisions including the "fast-track" rulemaking authority of Section 28.5 of the Act. *See* 415 ILCS 5/10, 27 (2008); P.A. 96-0308. Among other documents, a Statement of Reasons (SR) and a Technical Support Document (TSD) accompanied the proposal. The Agency also filed a motion for waiver of copy requirements. In an order dated November 5, 2009, the Board accepted the Agency's proposal for hearing and granted the Agency's motion for waiver of copy requirements.

In a letter dated November 5, 2009, the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study of the Agency's rulemaking proposal. *See* 415 ILCS 5/27(b) (2008). DCEO has not responded to the Board's request.

In an order dated November 5, 2009, the hearing officer scheduled three hearings to take place in Chicago: the first beginning on December 9, 2009, the second beginning on January 6, 2010, and the third beginning on January 20, 2009.

First notice of the proposed rules appeared in the *Illinois Register* on November 20, 2009. 33 Ill. Reg. 16399-16516 (Nov. 20, 2009); *see* 5 ILCS 100/5-40(b) (2008) (45-day comment period).

On November 25, 2009, the Agency pre-filed for the first hearing the testimony of Mr. Yoginder Mahajan (Mahajan Test.). The first hearing took place as scheduled on December 9, 2009. The Board received the transcript of the first hearing (Tr.1) on December 10, 2009. During the first hearing, the hearing officer admitted into the record a single exhibit, the pre-filed testimony of Mr. Mahajan (Exh. 1). Tr.1 at 8-9.

On December 28, 2009, the Agency filed a motion to amend its rulemaking proposal.

No participant pre-filed testimony for the second hearing, which took place as scheduled on January 6, 2010. The Board received the transcript of the second hearing (Tr.2) on January 8, 2010. On the record at the second hearing, the Agency stated that it did not wish to introduce any additional material and that it wished to cancel the third hearing scheduled to take place on January 20, 2010. Tr.2 at 7-8; *see* P.A. 96-0308 (subsection (f)(3)). In an order dated January 11, 2010, the hearing officer cancelled the third hearing and set a deadline of January 22, 2010, for filing post-hearing comments. *See* P.A. 96-0308 (subsection (k)). The Board has received no public comments during the course of this proceeding.

On February 4, 2010, the Board adopted its second-notice opinion and order, which granted the Agency's December 28, 2009 motion to amend its rulemaking proposal. At its meeting on March 9, 2010, JCAR considered the Board's second-notice proposal and issued its Certificate of No Objection. JCAR proposed non-substantive changes, which the Board incorporates in its order below.

BACKGROUND OF FEDERAL VOM REGULATION

The Agency stated that its rulemaking proposal intended to satisfy Illinois' obligation under the Clean Air Act (CAA) to submit a State Implementation Plan (SIP) addressing sources of VOM emissions in areas designated as nonattainment with respect to the National Ambient Air Quality Standard (NAAQS) for ozone. SR at 1, 6-7, citing 42 U.S.C. §§ 7502, 7511a.

The Agency characterized VOM¹ as “a primary precursor to the formation of ground-level ozone, which is formed when oxides of nitrogen and VOM react in the atmosphere in the presence of sunlight.” SR at 2. “Ground-level ozone is a major component of smog.” SR at 2-3, citing 72 Fed. Reg. 57217 (Oct. 9, 2007). The Agency stated that, in 1997, USEPA revised the NAAQS for ozone by replacing a 1-hour standard with an 8-hour standard. *Id.* at 3, citing 62 Fed. Reg. 38856 (July 18, 1997), *see* TSD at 7. Two Illinois areas, Chicago and St. Louis/Metro East, have been designated as moderate nonattainment areas (NAA) for the 8-hour ozone standard.² SR at 3, TSD at 7.

These nonattainment designations trigger CAA requirements “for adopting regulations that reduce emissions sufficiently to demonstrate attainment of the standard.” SR at 4, citing 42 U.S.C. § 7502(c)(1). Specifically, the Agency claimed that the CAA requires Illinois “to submit VOM regulations constituting RACT [reasonably available control technology] for Group III Consumer and Commercial Product Categories in ozone NAAs classified as moderate and above.” SR at 5, citing 42 U.S.C. §§ 7502(c)(1), 7511a(b)(2). The Agency defined RACT “as the lowest emissions limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility.” SR at 5, citing 44 Fed. Reg. 53762 (Sept. 17, 1979); *see* TSD at 7. The Agency stated that “Illinois was required to submit its SIP revisions by October 9, 2008.” SR at 5.

The Agency stated that the CAA requires USEPA to “conduct a study of the emissions of VOM into the ambient air from consumer and commercial products in order to determine their potential to contribute to ozone levels which violate the ozone NAAQS and to establish criteria for regulating emissions of VOM from such products.” SR at 3, citing 72 Fed. Reg. 57217 (Oct. 9, 2007). The Agency further stated that the CAA provides that “[t]he Administrator shall list those categories of consumer or commercial products that the Administrator determines, based on the study, account for at least 80 percent of the VOC emissions . . . from consumer or commercial products in areas that violate the NAAQS for ozone” and separate those categories into groups. SR at 3, citing 42 U.S.C. 7511b(e)(3)(A).

¹ The Agency stated that VOM and volatile organic compounds (VOC) are “effectively the same” as one another. SR at 1.

² The Chicago nonattainment area includes the following jurisdictions: Cook, DuPage, Kane, Lake, McHenry, and Will Counties, Goose Lake and Aux Sable Townships in Grundy County, and Oswego Township in Kendall County. SR at 3, citing 40 C.F.R. 81.314; *see* TSD at 6, 7. The St. Louis/Metro East nonattainment includes the following Illinois counties: Jersey, Madison, Monroe, and St. Clair. SR at 3, citing 40 C.F.R. 81.314; *see* TSD at 6, 7.

The Agency claimed that “[t]he CAA requires that USEPA then either regulate VOM emissions from such categories or issue a CTG in lieu of a national regulation if the Administrator determines that such guidance will be substantially as effective as regulations in reducing emissions of VOM which contribute to ozone levels in ozone NAAs.” SR at 4, citing 42 U.S.C. § 7511b(e)(3)(C). The Agency stated that “CTGs provide states with recommendations regarding what types of controls could constitute RACT for VOM for the applicable source categories.” SR at 4, citing 72 Fed. Reg. 57217-18. The Agency claimed that “[s]tates must either adopt regulations to implement the recommendations in the CTG or adopt alternative approaches that constitute RACT, either of which must be submitted to the USEPA for review and approval as part of the SIP process.” SR at 4, citing 72 Fed. Reg. 57218; *see* TSD at 6.

The Agency reported that, on October 9, 2007, USEPA issued final CTGs for three Group III Consumer and Commercial Product categories. SR at 4; *see* TSD at 6, 7. The Agency stated that “[t]hese CTGs contained information regarding sources of VOM emissions from the applicable industries, the recommended available control options to reduce VOM emissions, and the cost of recommended control measures.” Mahajan Test. at 2. USEPA required submission of SIP revisions responding to the CTGs within one year. SR at 4, citing 72 Fed. Reg. 57215-18.

The Agency reported that “Illinois is required to submit these SIP revisions before the USEPA can re-designate the Chicago and Metro East NAAs to attainment of the 1997 ozone NAAQS, regardless of whether the VOM reductions obtained by the SIP revisions are actually necessary to achieve attainment of the NAAQS.” SR at 7, citing *Wall v. USEPA*, 265 F.2d 426, 433, 440-42 (6th Cir. 2001); 42 U.S.C. § 7407(d)(3)(E). The Agency noted that, on July 2, 2007, it “submitted to the USEPA an attainment demonstration for the Metro East nonattainment area for the 1997 8-hour ozone NAAQS.” SR at 7. The Agency further noted that, on March 19, 2009, it submitted an attainment demonstration for the Chicago nonattainment area. *Id.* The Agency argued that “[t]hese areas cannot be redesignated to attainment of the ozone NAAQS, however, unless and until the Illinois EPA submits SIP revisions in response to the Group III CTGs and the USEPA approves such revisions.” *Id.* at 7-8. The Agency stated that its proposal intended generally “to implement the recommendations contained in the CTGs to the extent that such recommendations are consistent with existing regulations.” SR at 10.

The Agency also noted that USEPA recently strengthened the ozone standard. SR at 8 citing 73 Fed. Reg. 16436 (Mar. 27, 2008). The Agency considered it “likely” that areas designated as nonattainment for the current standards will be designated nonattainment for the revised standard as well. SR at 8. The Agency argued that, “[w]hile attainment of the revised standard is not the purpose of this rulemaking, it should be noted that any reduction in VOM emissions in the NAAs resulting from these proposed amendments will improve ozone air quality and will likely help Illinois achieve and maintain the newly revised NAAQS.” *Id.*

DESCRIPTION OF PROCESSES AND SOURCES OF VOM EMISSIONS

Paper, Film, and Foil Coatings

The Agency stated that “[p]aper, film, and foil coatings include adhesives used on tapes and labels, and are defined as ‘any protective, decorative, or functional coating applied on paper, plastic film, or metallic foil to make certain products, including but not limited to adhesive tapes and labels, book covers, post cards, office copier paper, drafting paper, or pressure sensitive tapes.’” TSD at 9 (§2.1). The Agency stated that this category also includes “coatings applied through saturation or impregnation.” *Id.* The Agency indicated that these coatings

can also be categorized as a web coating process, which typically involves the application of a continuous layer of coating across either a whole or part of the width of a web substrate to do the following: 1) provide a covering, finish, or functional or protective layer to a substrate; 2) saturate a substrate for lamination; or 3) provide adhesion between two substrates for lamination.” *Id.*

The Agency listed various kinds of coating applicators including “rotogravure, reverse roll, slot die, knife, flexography, Mayer rod, dip and squeeze, and extrusion/calendaring.” TSD at 9, citing Control Techniques Guideline for Paper, Foil, and Foil Coatings, Office of Air Quality Planning and Standards, USEPA 453/R07-003 (Sept. 2007). The Agency stated that “[a]n average coating line can include a series of one or more unwind/feed stations; one or more coating applicators; the flash off area (the portion between two or more consecutive coating applicators or between the coating applicator and the drying oven); one or more drying ovens; and one or more rewind/cutting stations.” TSD at 9. The Agency noted that facilities also conduct cleaning activities “to eliminate coating residue or other unwanted materials from equipment related to coating operations.” *Id.* Facilities conduct this cleaning with spray guns and related operations. *Id.*

The Agency stated that VOM emissions in this category result “from the evaporation of volatile components of the coatings and cleaning materials.” TSD at 9. The Agency further stated that these can result chiefly from “the process of coating application/flash-off, coating curing/drying, and cleaning.” *Id.* at 9-10. The Agency indicated that “[a]bout 90% of the VOM in the coatings is evaporated in the drying ovens.” *Id.* at 10, citing Control Techniques Guideline for Paper, Foil, and Foil Coatings, Office of Air Quality Planning and Standards, USEPA 453/R07-003 (Sept. 2007).

Large Appliance Coatings

The Agency defined large appliance coatings as “any protective, decorative, or functional coating applied onto the surface of large appliances or to the constituent metal parts.” TSD at 10 (§2.2). The Agency listed as examples of large appliances “residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other similar products.” *Id.* The Agency stated that coatings are a significant part of appliance manufacturing, “as they protect the metal on the large appliances from rusting away by allowing resistance to such factors as moisture, heat, detergent, and even outdoor elements.” *Id.* The Agency also stated that the coatings “must be durable and have superb adhesion properties to prevent chipping or peeling.” *Id.* The Agency indicated that specific

coatings “include paints, topcoats, basecoats, primers, enamels, sealants, caulks, inks, adhesives, and maskants. . . .” *Id.*

The Agency described a number of processes for the application of large appliance coatings. TSD at 10, citing Control Techniques Guidelines for Large Appliance Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-004 (Sept. 2007). First, the Agency stated that, “[i]n air atomized spraying, compressed air is used to provide transfer efficiencies of up to 40%.” TSD at 10. The Agency distinguished airless spraying, which “employs an airless pump system to force the coating through a nozzle that is made to atomize the coating for a transfer efficiency of between 50 to 60 percent.” *Id.* The Agency also described electrostatic spraying, in which “an air or airless gun system can be created to magnetize the coating to the substrate and achieve approximately 85% transfer efficiency.” *Id.* The Agency stated that dip coating “involves dipping a part into a tank that contains the coating” and has a transfer efficiency of nearly 85%. *Id.* The Agency described electrodeposition as “just a type of dip coating method that uses an electric field to aid the placement of a waterborne coating to a substrate.” *Id.* Finally, the Agency stated that “flow coating is a technique that applies a coating directly onto a substrate without atomizing the coating and usually creates 85% transfer efficiency.” *Id.*

The Agency stated that, in large appliance coating, “[p]rimary sources of VOM emissions evolve from the coating application (prime, single or topcoat application)/flash-off and drying/curing of the coatings and from mixing and/or thinning.” TSD at 11. In addition, the Agency cited cleaning materials as another source of VOM emissions from this category. *Id.* The Agency stated that cleaning may involve different types of chemical washes, “including solvent cleaning, acid washing, phosphate washing, and de-ionized water washing,” with solvent cleaning and wetting oil treatments constituting the greatest source of emissions. *Id.* The Agency further noted that “[c]leaning materials can also be used in cleaning coating equipment and to touch up final products.” *Id.* The Agency claimed that, although many of these cleaning products are typically VOM solvents, there is greater use of alcohol and water-based cleaners. *Id.*, citing Control Techniques Guidelines for Large Appliance Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-004 (Sept. 2007).

Metal Furniture Coatings

The Agency provided examples of metal furniture: “tables, chairs, waste baskets, beds, desks, lockers, benches, shelving, file cabinets, lamps, and room dividers that are made in whole or in part by metal.” TSD at 11 (§2.3). The Agency defined metal furniture coatings as “any protective, decorative or functional coating applied onto the surface of any metal furniture or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form metal furniture.” *Id.* The Agency stated that these coatings include paints and that they protect metal furniture “from rusting away by allowing resistance to such elements as moisture, heat, detergent, and even outdoor factors.” *Id.* The Agency also stated that the coatings “must be durable and have superb adhesion properties to prevent chipping or peeling.” *Id.*

The Agency stated that metal furniture manufacturing involves four main processes, the first of which is raw material preparation. TSD at 11. The second process, surface preparation, consists of the following steps: 1) alkaline or acid cleaning, 2) water rinse, 3) iron phosphate treatment, 4) water rinse, and 5) pre-treatment and/or another final water rinse. *Id.* The third process, coating and adhesive application operations, includes curing or drying of the coating. *Id.* In the fourth process, “the final unit is assembled and packaged for shipment.” *Id.* at 12. The Agency further stated that surface preparation, coating application, and cleaning activities use VOM-containing compounds such as coatings, thinners, and cleaning materials. *Id.* at 11.

The Agency stated that, “[s]imilar to the large appliance coatings, the primary source of VOM emissions can occur from the evaporation of the volatile contents of the coatings and cleaning materials.” TSD at 12. Specifically, emissions occur when solvents vanish “from the coating as it is being placed onto the part, or even when solvents are being used during the final cleaning process.” *Id.* The Agency claimed “that the more efficient that a coating application technique is in enabling a transfer of coatings to the metal furniture part, the volume of coatings needed during production decreases, which thereby results in lower VOM emissions.” *Id.*, citing Control Techniques Guidelines for Metal Furniture Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-005 (Sept. 2007).

SUMMARY OF EXISTING REGULATIONS

The Agency stated that it now regulates VOM emissions in the two Illinois NAAs from coating operations including paper, film, and foil; metal furniture; and large appliances. TSD at 28 (§5.1). The Board briefly summarizes those existing regulations in the following subsections.

Paper, Film, and Foil Coatings

The Agency stated that Parts 218 and 219 currently regulate VOM emission from paper, film, and foil coating processes. TSD at 28 (§5.1.1); *see* Mahajan Test. at 3. Specifically, the Agency stated that “VOM content limitations are prescribed for paper coating operations that emit 15 lb/day or more of VOM from all associated coating operations.” TSD at 28; *see* 35 Ill. Adm. Code 218.208, 219.208. On and after March 15, 1996, those limitations are 0.28 kg/l or 2.3 lb/gal. 35 Ill. Adm. Code 218.204(c), 219.204(c). The Agency further stated that, “[a]lternatively, sources may install and operate VOM capture and control systems that provide 81% reduction in overall VOM emission, and the control device must achieve 90% efficiency (control devices include afterburner, carbon adsorption, condensation, or absorber scrubber system).” TSD at 28-29; *see* 35 Ill. Adm. Code 218.207(b), 219.207(b).

Large Appliance Coatings

The Agency stated that “[s]pecific regulations for large appliance coatings are located in Subpart F. . . .” TSD at 29 (§5.1.2); *see* 35 Ill. Adm. Code 218.204-217, 219.204-217, Mahajan Test. at 4. The Agency further stated that “[t]he applicable threshold for the total actual uncontrolled VOM emission from all large appliance coating operations is 15 lbs/day or more.” TSD at 29; *see* 35 Ill. Adm. Code 218.208, 219.208. The Agency noted that existing regulations

do not distinguish between coating types and instead distinguish baked and air-dried operations. TSD at 29; *see* 35 Ill. Adm. Code 218.204(h), 219.204(h). On and after March 15, 1996, those limitations are 0.28 kg/l and 2.3 lb/gal for baked coatings and 0.34 kg/l and 2.8 lb/gal for air-dried coatings. TSD at 29; *see* 35 Ill. Adm. Code 218.204(h), 219.204(h). The Agency further stated that the regulations provide an alternative requiring “a coating line to be equipped with a capture system and control device that provides an 81% reduction in overall VOM emissions, and the control device . . . achieves a 90% efficiency.” TSD at 29; *see* 35 Ill. Adm. Code 218.207(b), 219.207(b).

Metal Furniture Coatings

The Agency stated that the “[r]egulations for metal furniture coating operations are very similar to the regulations for large appliance coatings,” except for limits applicable before March 15, 1996. TSD at 30 (§5.1.3); *see* 35 Ill. Adm. Code 218.204(g), 219.204(g), *see also* Mahajan Test. at 4.

SUMMARY OF AGENCY’S PROPOSED REGULATIONS

The Agency claimed that its proposed amendments are consistent with the 2007 USEPA CTGs and that its proposal controls VOM emissions from paper coating, metal furniture coating, and large appliance coating. TSD at 30 (§5.2); *see id.* at 7-8 (summarizing CTG recommendations). The Agency proposed that compliance with its proposed new regulations begin on May 2, 2011. TSD at 30. Below, the Board provides a brief overview of the Agency’s proposed revisions to Parts 218 and 219.

Paper, Film, and Foil Coatings

The Agency stated that it proposes no “change to the applicability threshold of 15 lb/day or more for control requirements for paper coating.” TSD at 30 (§5.2.1). The Agency proposed, however, “to specify the VOM content limits of paper coating in lb (kg) of VOM per lb (kg) of solids and equivalent VOM limits in kg (lb) of VOM per kg (lb) of coating.” *Id.*, Mahajan Test. at 3. The Agency also proposed “a lower VOM limit of 0.20 kg per kg of solids (0.20 lb/lb of solids) for pressure sensitive tape and label surface coating.” Mahajan Test. at 3; *see* TSD at 14-15. The Agency claimed that, “[e]xcept for pressure sensitive tape and label surface coating, the VOM limits are equivalent to the existing VOM limits for paper coating.” TSD at 30; *see* Prop. 218 at 12, Prop. 219 at 11.

The Agency stated that “[a]ffected sources may use add on capture and control systems to comply with the VOM content limits of the coatings.” TSD at 31. However, the Agency proposed “to increase the overall control efficiency standards to 90 percent from the existing 81 percent overall control efficiency of the add-on capture and control systems.” *Id.*, Mahajan Test. at 3; *see* TSD at 14-15. In addition, the Agency proposed that “[t]hese limits can be met through daily within-line averaging (*i.e.*, averaging the VOM content of materials used on an individual surface coating line each day).” TSD at 14.

In addition, the Agency proposed a new Section 218/219.218 prescribing standards for the use of cleaning materials at applicable sources on and after May 1, 2011. TSD at 31; *see* Prop. 218 at 51-52, Prop. 219 at 48-49. For cleaning materials, the Agency stated that “add-on controls would be too costly because the area to be controlled is very large, and would thereby require a large volume of air to be captured and directed to a control device.” TSD at 14. The Agency listed the following as work practices that may be employed to reduce VOM emissions from cleaning materials:

- 1) place all VOM-containing cleaning materials in closed containers; 2) guarantee that mixing and storage containers used for VOM-containing materials are kept closed at all times except when depositing or removing these materials; 3) curtail spills of VOM-containing cleaning materials; 4) transfer VOM-containing cleaning materials from one location to another in closed containers or pipes; and 5) reduce VOM emissions from cleaning of storage, mixing, and conveying equipment. . . . TSD at 14-15

Large Appliance Coatings

The Agency stated that it proposes no “change to the applicability requirement of 15 lb VOM/day or more for the control requirements for large appliance coatings. TSD at 32 (§5.2.2). The Agency proposed to “specify separate VOM content limits for one-component and multi-component general purpose coatings.” *Id.*; *see* Prop. 218 at 15, Prop. 219 at 14, TSD at 18-19 (Tables 2, 3), Mahajan Test. at 4. The Agency also proposed “specific emission limits for certain specialty coatings.” TSD at 32; *see* Prop. 218 at 15-16, Prop. 219 at 14-15, TSD at 18-19 (Tables 2, 3), Mahajan Test. at 4. In addition, the Agency proposed “separate emission limits for baked and air-dried coatings.” TSD at 32; *see* Prop. 218 at 15-16, Prop. 219 at 14-15, TSD at 18-19 (Tables 2, 3), Mahajan Test. at 4.

The Agency’s proposal required the use of one or more application methods: electrostatic application, HVLP [high volume low pressure] spray, flow coat, roller coat, or dip coat including electrodeposition. The proposal allowed the use of other coating application methods capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spraying with the approval of the Agency. TSD at 32; *see* Prop. 218 at 16-17, Prop. 219 at 15-16, Mahajan Test. at 4-5. Also, the proposal provided “that 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 are exempt from VOM content limits.” TSD at 32; *see* Prop. 218 at 16, Prop. 219 at 15-16, Mahajan Test. at 4.

The Agency stated that “[a]ffected sources may use add-on capture and control systems to comply with the VOM content limits of the coatings.” TSD at 32. However, the Agency proposed “to increase the overall control efficiency standard to 90 percent from the existing 81 percent overall control efficiency.” *Id.*, Mahajan Test. at 5; *see* TSD at 18-19 (Tables 2, 3). In addition, the Agency proposed a new Section 218/219.218 establishing work practice standards

for large appliance coatings. TSD at 31, *see* Prop. 218 at 51-52, Prop. 219 at 48-49, TSD at 20 (§ 3.2.3) (USEPA recommendations), Mahajan Test. at 5.

Metal Furniture Coatings

The Agency stated that “[t]he proposed applicability, VOM limits, add-on control device efficiency, and work practices requirements for metal furniture coatings are identical to the proposed regulations for large appliance coatings.” TSD at 33 (§5.2.3); *see* Mahajan Test. at 4-5; *see also* TSD at 20-25 (Tables 4, 5) (USEPA recommendations).

ECONOMIC REASONABLENESS AND TECHNICAL FEASIBILITY

In pre-filed testimony, Mr. Mahajan stated that “[t]he Agency believes that the proposed changes are technically feasible and economically reasonable.” Mahajan Test. at 6. The Agency further indicated that “[t]he technology for controlling VOM emissions from Group III product categories is both technically feasible and economically reasonable.” TSD at 9. The Agency argued that “[a]ffected sources can meet the requirements in the proposed amendments through a number of readily available control techniques.” *Id.* In the following subsections, the Board summarizes the record pertaining to the issues of economic reasonableness and technological feasibility.

Affected Sources and Projected VOM Emissions Reductions

The Agency stated that it reviewed its emission inventory data to identify emission sources potentially affected by these proposed regulations. TSD at 34. The Agency reported that it had identified 24 potentially affected sources, all but two of which are situated in the Chicago NAA. *Id.* at 6, 34. In the following subsections, the Board summarizes the record regarding these sources and the anticipated emissions reductions in each of the categories addressed in this rulemaking.

Paper, Film, and Foil Coatings

The Agency determined that 16 sources in the Chicago NAA and two in the Metro-East NAA are potentially affected by these proposed regulations. TSD at 34 (Table 10), Mahajan Test. at 3-4. The Agency stated that seven of the 16 sources in the Chicago NAA comply through the use of add-on capture and control systems. TSD at 34, Mahajan Test. at 3. The Agency claimed that “[a]ll other affected sources use compliant coatings to comply with the regulations.” TSD at 34. The Agency further claimed that “no new add-on capture and control systems will be installed to meet the proposed regulations.” *Id.*, *see* Mahajan Test. at 3-4. Instead, the Agency “expects that affected sources will continue to use compliant coatings, or upgrade their existing add-on capture and control systems to meet the proposed VOM emissions limits.” Mahajan Test. at 4; *see* TSD at 34.

The Agency stated that, in 2005, these 18 sources accounted for total VOM emissions of 109.83 tons. TSD at 34 (Table 10). The Agency stated that its proposal will reduce VOM

emissions by 21.45 tons per year in the Chicago NAA at a cost of \$1,200 per ton of VOM reduced. Mahajan Test. at 4, TSD at 34. The Agency stated that it “does not expect any reduction in VOM emissions” in the Metro-East NAA. Mahajan Test. at 4; *see* TSD at 34.

Large Appliance Coatings

The Agency determined that “[t]here are no affected sources of large appliance coatings” in either the Chicago or Metro-East NAA. Mahajan Test. at 5; *see* TSD at 34 (Table 10). Accordingly, the Agency expects its proposal to yield no VOM emissions reductions from this category. *See* TSD at 34.

Metal Furniture Coatings

The Agency “determined that there are six affected sources of metal furniture coatings in the Chicago NAA and none in the Metro-East NAA.” Mahajan Test. at 5; *see* TSD at 34 (Table 10). The Agency stated that, in 2005, these six sources accounted for total VOM emissions of 89.4 tons. TSD at 34. However, the Agency stated that it “expects that affected sources will continue using compliant coatings to comply with the VOM limits.” Mahajan Test. at 5. Accordingly, the Agency expected its proposal to yield no VOM emissions reductions from this category. Mahajan Test. at 5; *see* TSD at 34 (Table 10).

Technical Feasibility

Paper, Film, and Foil Coatings

The Agency stated that paper, film, and foil coating operations commonly employ pollution prevention measures such as product substitution/reformulation to reduce VOM emissions. TSD at 13 (§3.1); *see* SR at 9. The Agency further stated that “[l]ower VOM content coatings, such as waterborne and higher solids content coatings, or coatings with no solvents may be used to reduce VOM emissions by reducing or eliminating the organic solvent present in the coatings.” TSD at 13. The Agency reported that “manufacturers have developed and are continuing to develop waterborne and other alternative coating formulations that replace conventional organic solvent-based coatings.” *Id.* The Agency acknowledged, however, that available low-VOM coatings and coatings with no solvent may not satisfy the performance requirements of certain coating operations. *Id.*

The Agency claimed that, if these low-VOM coatings do not meet the performance requirements, emissions “can be reduced by the use of capture systems in conjunction with add-on control systems that either destroy or recover the VOM in the exhaust streams.” TSD at 13. The Agency reported that paper, film, and foil coating operations typically rely on two categories of control devices: “combustion (thermal or catalytic oxidation) and recovery (adsorption and condensation).” *Id.* The Agency claimed that, “[i]n general, oxidation and adsorption systems can achieve destruction efficiency of greater than 95 percent as applied to surface coating application operations with high and constant concentration of VOM.” *Id.* at 13-14, citing

Control Techniques Guideline for Paper, Foil, and Foil Coatings, Office of Air Quality Planning and Standards, USEPA 453/R07-003 (Sept. 2007).

The Agency stated that “[p]ollution prevention is the most common emission control technique for reducing VOM emissions from cleaning materials.” TSD at 14. These measures include “[r]educing the composite vapor pressure or VOM content of the cleaning material used.” *Id.* The Agency acknowledged, however, that “little information is available regarding the types of low-VOM or VOM-free cleaning materials that could be used in the paper, film, and foil surface coating industry.” *Id.*

Large Appliance Coatings

The Agency stated that “[s]everal kinds of controls are available to industry to control VOM emissions from coatings and the cleaning materials associated with this category.” TSD at 15 (§3.2); *see* SR at 9. Pollution prevention measures include product substitution/reformulation, through which “affected sources can use waterborne coatings, higher solids solvent-borne coatings, and powder coatings to reduce VOM emissions through decreasing or even eliminating the amount of organic solvent in the coatings.” TSD at 15. The Agency claimed that “work practices may be used to reduce VOM emissions from coatings during paint mixing, paint storage, and paint transfer operations.” *Id.* at 16.

The Agency reported that “[e]mission capture and add-on control systems can also be used to reduce VOM emissions from large appliance coating operations.” TSD at 16. The Agency stated that

[t]he most common method for the destruction of VOM from coatings is thermal oxidation, and can include the following: (1) direct, gas-fired, thermal recuperative oxidation; (2) direct, gas-fired thermal regenerative oxidation; (3) direct, electrically heated, thermal regenerative oxidation; (4) direct, electrically heated, catalytic oxidation; and (5) direct, gas-fired, catalytic oxidation. *Id.*

The Agency claimed that controls of these types “can achieve a VOM control efficiency between 80% and 98%, with thermal oxidation being the more preferred method for VOM destruction.” *Id.*, citing Control Techniques Guidelines for Large Appliance Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-004 (Sept. 2007).

The Agency stated that options for controlling VOM emissions from cleaning materials include pollution prevention measures. TSD at 16. The Agency reported that, “[f]or product substitution/reformulation, alternative cleaners, such as alcohols and citrus-based cleaners, can be employed to restrict VOM emissions from cleaning operations.” *Id.* The Agency also reported that “[a]n example of a work practice procedure that can be utilized to further reduce VOM emissions from cleaning operations involves nozzle maintenance, which is an integral part of any metal pre-treatment system – an improperly maintained nozzle can lower spray impact and can distort spray systems, and thereby reduce the cleaning efficiency.” *Id.* The Agency also

indicated that sources can use emission capture and add-on controls to reduce VOM emissions from cleaning operations in this category. *Id.* at 17.

Metal Furniture Coatings

The Agency stated that sources in this category have available two techniques for reducing VOM emissions. TSD at 20 (§3.3); *see* SR at 9. First, as pollution prevention measures, “[a] source may choose to substitute higher-solvent coatings with either powder coatings, waterborne coatings, higher solids coatings, UV coatings, electrocoatings, and autophoretic coatings, all of which have little or no solvents.” TSD at 20. Second, when low-VOM coatings or coatings with no solvent fail to meet the performance standards of an operation, the use of more effective application equipment can reduce emissions. *Id.* The Agency reported that “[c]onventional air atomized application systems have typical transfer efficiencies between 25-40% using high atomizing air pressure. More modern technologies include electrostatic and high volume/low flow pressure (HVLP) spray equipment, which can attain far greater transfer efficiencies, which results in less dependence on VOM-containing materials.” *Id.* at 20-21, citing Control Techniques Guidelines for Metal Furniture Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-005 (Sept. 2007).

The Agency stated that, in addition to pollution prevention measures, sources in this category can reduce VOM emissions through “use of capture systems and add-on control devices, which either destroy or recover the VOM in the exhaust stream.” TSD at 21. The Agency cited as an example of a capture system “such simple components as hoods and enclosures, which collect solvent-filled air from process vents (such as spray booths or bake oven vents) and/or fugitive emissions from the flash-off area, and direct it to a control device.” *Id.* The Agency stated that control devices “include combustion (thermal or catalytic oxidation) and recovery (adsorption and absorption),” which “can reach a control efficiency of 95% or greater.” *Id.* The Agency listed other control technologies that are not in wide use: “condensation, biodegradation, and UV oxidation.” *Id.*

Regarding control of emissions from cleaning materials in this category, the Agency stated that pollution prevention is “the most widely used” technique. TSD at 21. Sources may use low-VOM or VOM-free cleaning materials and can also employ various work practice procedures. *Id.*

Economic Reasonableness

The Agency stated that it “relied on the U.S. EPA’s economic analysis in the respective CTGs to determine the economic costs and impacts associated with the control of VOM emissions from paper, film, and foil coatings; metal furniture coatings; and large appliance coatings operations in Illinois’ NAAs.” TSD at 26 (§ 4.0). In the following subsections, the Board reviews the record on these issues.

Paper, Film, and Foil Coatings

The Agency stated that USEPA “assumed that about 47% of the facilities in the 2002 National Emissions Inventory (NEI) database (119 facilities) were currently in compliance with the 2002 National Emissions Standards for Hazardous Air Pollutants (NESHAP).” TSD at 26 (§4.1). The Agency further stated that, based on the average number of coating lines per facility whose potential emissions exceeded applicability thresholds, “the total annual cost was about \$24.5 million per year.” *Id.* The Agency claimed that, “if facilities that exceed the emission thresholds and that are located in NAAs utilized the 90% emissions reduction, it would create an emission reduction [of] 20,800 tpy.” *Id.* The Agency stated that the CTG expects “cost-effectiveness of implementing the CTG’s approaches to control VOM emissions would be about \$1,200 per ton.” *Id.*

The Agency stated that USEPA expects the use of add-on controls to reduce emissions from cleaning materials to be costly. TSD at 26. The Agency attributed this cost to the likelihood that “the area that would be controlled has a large volume of air that would be captured and directed to a control device.” *Id.*, citing Control Techniques Guideline for Paper, Foil, and Foil Coatings, Office of Air Quality Planning and Standards USEPA 453/R07-003 (Sept. 2007).

Large Appliance Coatings

The Agency stated that USEPA expects affected sources to rely on the low-VOM coatings materials alternative. TSD at 26 (§4.2). The Agency attributed this expectation to two factors: “1) complying low-VOM coatings are already available on the market at a cost that is not much greater than the cost of coating materials with higher VOM contents; and 2) the use of add-on controls to reduce VOM emissions from average spray coating operations would be a more costly alternative.” *Id.* at 26-27.

The Agency stated that, by taking into account the use of low-VOM coatings, the 90% overall control efficiency, and cleaning materials work practices, USEPA expects “that the cost-effectiveness for a medium sized facility that uses waterborne prime and higher solids topcoat would be approximately \$425 per ton in 2006 dollars.” TSD at 27. The Agency noted, however, that “the 2002 NESHAP presented a control cost of \$480,000 for approximately 1,000 tons of HAP reduction from 74 facilities anticipated to be subject to the rule (\$480 per ton of HAP reduced in 2006 dollars).” *Id.* The Agency reported that USEPA consequently expects an approximate cost-effectiveness “of about \$500 per ton of VOM reduced, and a total annual cost of the 1,000 tpy of emissions reduction to be \$500,000.” *Id.*, citing Control Techniques Guidelines for Large Appliance Coatings, Office of Air Quality Planning and Standards, USEPA 453/R-07-004 (Sept. 2007).

Metal Furniture Coatings

The Agency stated that USEPA relied on the 2002 NEI database to estimate that nationally there are 143 metal furniture facilities located in an ozone NAA and whose VOM emissions equal or exceed the applicability threshold. TSD at 27 (§4.3). The Agency stated that USEPA assumes affected sources will rely on the low-VOM coatings materials alternative. *Id.*

The Agency attributed this expectation to two factors: “1) complying low-VOM coating materials are already available on the market at a cost that is not much greater than the cost of coating materials with higher VOM contents; and 2) the use of add-on controls to reduce VOM emissions from average spray coating operations would be a more costly alternative.” *Id.*

The Agency stated that studies carried out for the 2003 NESHAP showed that “the cost to implement the control alternatives from the U.S. EPA’s CTG for this category averaged across all sizes of facilities was as high as \$1,670 per facility.” TSD at 27. Regarding the 143 facilities cited in the preceding paragraph, “total annual costs were estimated to be approximately \$240,500.” *Id.* The Agency claimed that implementation of the proposed regulations “will result in a 35% (1,200 tpy) reduction in VOM emissions from metal furniture coatings.” *Id.* The Agency stated that “U.S. EPA calculated the cost effectiveness to be about \$200 per ton in VOM emissions reduction.” *Id.*

Summary of Economic Reasonableness and Technical Feasibility

Although the Board in a letter dated November 5, 2009, requested that DCEO conduct an economic impact study on the Agency’s amended rulemaking proposal (*see* 415 ILCS 5/27(b)(1) (2008)), the Board to date has received no response to that request. At the second hearing, the Board received no testimony or comment regarding the absence of any response to the request. *See* Tr.2 at 6-7.

In his pre-filed testimony on behalf of the Agency, Mr. Mahajan stated that “[t]he Agency believes that the proposed changes are technically feasible and economically reasonable.” Mahajan Test. at 6. The Agency further states that “[t]he technology for controlling VOM emissions from Group III product categories is both technically feasible and economically reasonable.” TSD at 9. The Agency argues that “[a]ffected sources can meet the requirements in the proposed amendments through a number of readily available control techniques.” *Id.*

No participant has offered evidence or arguments rebutting the Agency’s position on these issues. Having reviewed the record before it on the issues of feasibility and reasonableness, the Board finds, as it did in adopting its proposal for second notice, that the adopted rules below are both technically feasible and economically reasonable.

SUMMARY OF ADOPTED RULES

Subpart A: General Provisions

Existing Subpart A provides general requirements regarding organic material emissions in Illinois’ two ozone NAAs. *See* 35 Ill. Adm. Code 218.100-114, 219.100-113. The Agency’s proposal sought only to amend Section 218/219.106, which establishes compliance dates. *See* 35 Ill. Adm. Code 218.106, 219.106. Specifically, the Agency proposed to add a new Section 218.106(e) and a new Section 219.106(c), both of “which establish May 1, 2011, as the compliance date for sources subject to the rulemaking proposal.” SR at 10; *see* Prop. 218 at 9,

Prop. 219 at 8-9. In responding to questions at the first hearing, the Agency suggested that this deadline should allow ample time for affected source to comply with the rule. Tr.1 at 11. The Agency also indicated that this proposed compliance date would not interfere with its pending demonstrations that the two NAAs have attained the ozone NAAQS. *Id.* at 12.

Subpart F: Coating Operations

Existing Subpart F addresses VOM emissions from coating operations. *See* 35 Ill. Adm. Code 218.204-217, 219.204-217. The Agency proposed a number of amendments to the provisions in that Subpart. *See* Prop. 218 at 10-52, Prop. 219 at 9-49. In this subsection of the opinion, the Board separately addresses its adopted rules on a section-by-section basis.

Section 218/219.204: Emission Limitations. The Agency stated that these sections currently “specify VOM limits in terms of mass of VOM per volume of coating for paper coating” and also “for air dried and baked coatings for large appliance coatings and metal furniture coatings.” Mahajan Test. at 3, 4; *see* 35 Ill. Adm. Code 218.204, 219.204. In its proposal, the Agency first sought to amend these sections so that their introductory paragraphs refer to revisions made in subsequent subsections. SR at 11; *see* Prop. 218 at 10, Prop. 219 at 9.

Subsection (c). The Agency proposed to amend this subsection “to specify VOM limits in terms of mass of VOM per mass of solids applied, and equivalent limits in terms of mass of VOM per mass of coatings applied.” Mahajan Test. at 3; *see* Prop. 218 at 12, Prop. 219 at 11. Regarding pressure sensitive tape and label surface coating, the Agency proposed “a lower VOM limit of 0.20 kg per kg of solids (0.20 lb/lb of solids).” Mahajan Test. at 3; *see* Prop. 218 at 12, Prop. 219 at 11. The Agency argued that, except for these two categories of pressure sensitive tape and label surface coating, “the VOM limits are equivalent to the existing VOM limits for paper coating.” Mahajan Test. at 3. The Agency further argued that these limitations reflect those set forth in the CTG. *See id.*

The Note following this subsection addresses the application of its provisions. *See* 35 Ill. Adm. Code 218.204(c), 219.204(c). The Agency also sought to add to this Note language providing that, “[o]n and after May 1, 2011, the paper coating limitation shall also 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.” Prop. 218 at 12, Prop. 219 at 11; *see* SR at 11. In its motion to amend, the Agency responded “to a Board recommendation that any substantive requirements contained in Board “Notes” be instead placed in the body of the proposed rule.” Mot. Amend at 5 (¶4); *see* Tr.1 at 15. The Agency sought to amend its proposal by adding clarifying language to the Note and re-designating it as new subsection (c)(3). Mot. Amend at 5. As noted above, the Board has granted the Agency’s motion and reflected those amendments in its order below.

Subsection (g). This provision now establishes limits “in terms of mass of VOM per volume of coating for air dried and baked coatings” for metal furniture coatings. Mahajan Test. at 4; *see* 35 Ill. Adm. Code 218.204(g), 219.204(g). The Agency proposed to amend this subsection to restrict the VOM content of these coatings “to the limitations set forth in the CTG.”

SR at 11. More specifically, the Agency sought to establish “VOM limits for one-component and multi-component general purpose coatings, and provide specific VOM emission limits for certain specialty coatings.” Mahajan Test. at 4; *see* Prop. 218 at 13-14, Prop. 219 at 12-13. For a number of types of coatings, the Agency proposed separate emission limits in terms of mass of VOM per volume of coatings for baked and air-dried coatings. Mahajan Test. at 4; *see* Prop. 218 at 13-14, Prop. 219 at 12-13. In addition, the Agency proposed “equivalent VOM limits in terms of mass of VOM per volume of solids applied.” Mahajan Test. 4; *see* Prop. 218 at 13-14, Prop. 219 at 12-13; *see also* Tr.1 at 12-14.

The Agency also proposed “that such limitations 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 using hand-held aerosol cans.” SR at 11; *see* Mahajan Test. at 4, Prop. 218 at 14, Prop. 219 at 13. Responding to a question at the first hearing, the Agency explained its basis for these exclusions. The Agency stated that USEPA determined in the CTG that low-VOM coatings are not available in these categories, requiring sources in those categories to use coatings with greater VOM content. Tr.1 at 14-15. The Agency also suggested that these excluded categories employ coatings at relatively low rates or volumes. *See id.* at 15.

Also during the first hearing, the Agency responded to a question by agreeing that it proposed to add language exempting these categories in a note attached to subsection (g)(2). Tr.1 at 15; *see* Prop. 218 at 14, Prop. 219 at 13. Although the Agency suggested that this organization was consistent with other provisions in Subpart F, it agreed to incorporate the proposed exemptions into the text of those regulations. *See* Tr.1 at 15-16. In its motion to amend, the Agency proposed to redesignate the language of the proposed note as a new subsection (g)(3). Mot. Amend at 7 (¶6). As noted above, the Board has granted the Agency’s motion and reflected those amendments in its order below.

The Agency’s proposal originally sought to require that metal furniture coating lines employ specific application methods. SR at 11. Responding to a question at the first hearing, the Agency indicated that it would consider whether these requirements should remain as proposed in subsection (g)(3) or should be codified in another section. *See* Tr.1 at 19-20. In its motion to amend, the Agency proposed to place these application method limitations in Section 218/219.218 addressing work practice standards. Mot. Amend at 1-5 (¶3). As noted above, the Board has granted the Agency’s motion and reflected those amendments in its order below.

Subsection (h). This provision now establishes limits “in terms of mass of VOM per volume of coating for air dried and baked coatings” for large appliance coatings. Mahajan Test. at 4; *see* 35 Ill. Adm. Code 218.204(h), 219.204(h). The Agency proposed to amend this subsection to restrict the VOM content of these coatings “to the limitations set forth in the CTG.” SR at 11. More specifically, the Agency sought to establish “VOM limits for one-component and multi-component general purpose coatings, and provide specific VOM emission limits for certain specialty coatings.” Mahajan Test. at 4; *see* Prop. 218 at 15-16, Prop. 219 at 14-15. For a number of types of coatings, the Agency proposed separate emission limits in terms of mass of VOM per volume of coatings for baked and air-dried coatings. Mahajan Test. at 4; *see* Prop. 218

at 15-16, Prop. 219 at 12-13. In addition, the Agency proposed “equivalent VOM limits in terms of mass of VOM per volume of solids applied.” Mahajan Test. 4; *see* Prop. 218 at 13-14, Prop. 219 at 12-13; *see also* Tr.1 at 14-15.

The Agency also proposed “that such limitations 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 using hand-held aerosol cans.” SR at 11; *see* Mahajan Test. at 4, Prop. 218 at 16, Prop. 219 at 15-16. Responding to a question at the first hearing, the Agency explained its basis for these exclusions. The Agency stated that USEPA determined in the CTG that low-VOM coatings are not available in these categories, requiring sources in those categories to use coatings with greater VOM content. Tr.1 at 14-15. The Agency also suggested that these excluded categories employ coatings at relatively low rates or volumes. *See id.* at 15.

Also during the first hearing, the Agency responded to a question by agreeing that it proposed to add language exempting these categories in a note attached to subsection (h)(2). Tr.1 at 15; *see* Prop. 218 at 16, Prop. 219 at 15-16. Although the Agency suggested that this organization was consistent with other provisions in Subpart F, it agreed to incorporate the proposed exemptions into the text of those regulations. *See* Tr.1 at 15-16. In its motion to amend, the Agency proposed to redesignate the language of the proposed note as a new subsection (h)(3). Mot. Amend at 6-7 (¶5). As noted above, the Board has granted the Agency’s motion to amend.

The Agency’s proposal originally sought to require that metal furniture coating lines employ specific application methods. SR at 11. Responding to a question at the first hearing, the Agency indicated that it would consider whether these requirements should remain as proposed in subsection (h)(3) or should be codified in another section. *See* Tr.1 at 19-20. In its motion to amend, the Agency proposed to place these application method limitations in Section 218/219.218 addressing work practice standards. Mot. Amend at 1-5 (¶3). The Board has granted the Agency’s motion to amend and addresses those application requirements below in its summary of proposed Section 218/219.218.

Section 218/219.205: Daily-Weighted Average Limitations. Existing Section 218/219.205 allows compliance with the limitations in Section 218/219.204 through a daily weighted averaging alternative. *See* 35 Ill. Adm. Code 218.205, 219.205. The Agency first proposed to amend this Section by adding a subsection (j) to Section 218.205 and a subsection (i) to Section 219.205 to provide “requirements for paper coating lines utilizing the daily weighted averaging alternative on and after May 1, 2011.” SR at 12; *see* Prop. 218 at 29-30, Prop. 219 at 27. The Agency proposed to amend the introductory paragraphs of these Sections to add a reference to the proposed new subsections. SR at 12, *see* Prop. 218 at 24, Prop. 219 at 22. Finally, the Agency also proposed to amend the existing subsection (a) to provide that its requirements apply to paper coating lines only until May 1, 2011. SR at 12; *see* Prop. 218 at 24, Prop. 219 at 22.

Section 218/219.207: Alternative Emission Limitations. Existing Section 218/219.207 establishes alternative emission limitations based upon the operation of a capture system and control device. *See* 35 Ill. Adm. Code 218.207, 219.207. The Agency first proposed to amend this Section by adding a subsection (l) to Section 218.207 and a subsection (k) to Section 219.207 to set “forth the requirements for paper, metal furniture, and large appliance coating lines utilizing the alternative emissions limitation on and after May 1, 2011.” SR at 12; *see* Prop. 218 at 34, Prop. 219 at 31. The Agency also proposed to amend the existing subsection (a) to refer to the proposed new subsections. SR at 12, *see* Prop. 218 at 30, Prop. 219 at 27. The Agency also proposed to amend the existing subsection (c), (j), and (k) in Section 218.207 and the existing subsections (c), (i), and (j) in Section 219.207 “to provide that such subsections only apply to paper coating lines, metal furniture coating lines, and large appliance coating lines, respectively, until May 1, 2011.” SR at 12; *see* Prop. 218 at 31, 33, Prop. 219 at 28, 30-31.

Section 218/219.210: Compliance Schedule. Existing Section 218/219.210 establishes compliance schedules for coating lines subject to various requirements under Subpart F. 35 Ill. Adm. Code 218.210, 219.210. The Agency proposed to add a new subsection (g) providing “that, on and after a date consistent with Section 218/219.106, sources subject to the proposed paper, metal furniture, or large appliance coating limitations shall comply with such limitations, as well as with all other applicable provisions in Subpart F.” SR at 12; *see* Prop. 218 at 35, Prop. 219 at 32. The Agency also proposed to amend the introductory paragraph of the section to refer to the proposed new subsection. SR at 12; *see* Prop. 218 at 34, Prop. 219 at 31.

Section 218/219.211: Recordkeeping and Reporting. Existing Section 218/219.211 establishes recordkeeping and reporting requirements for affected coating operations. 35 Ill. Adm. Code 218.211, 219.211. The Agency proposed to amend various subsections of that provision, as described separately below. *See* Prop. 218 at 35-46, Prop. 219 at 32-44.

Subsection (c). The Agency proposed to amend subsection (c) “to provide that, for paper coating lines subject to the proposed VOM content limitations, VOM content information shall be maintained and/or reported in terms of weight of VOM per weight of solids or coatings, as applicable, as applied each day on each coating line.” SR at 13; *see* Prop. 218 at 39, Prop. 219 at 36. The Agency also proposed to amend this subsection “to provide that metal furniture and large appliance coating lines subject to the proposed VOM content limitations maintain and/or report VOM content information in terms of weight of VOM per volume of each coating or solids, as applicable, as applied each day on each coating line, and report the application method(s) used to apply coatings on each subject coating line.” SR at 13; *see* Prop. 218 at 39, Prop. 219 at 36. The Agency also sought to require that “[p]aper, metal furniture, and large appliance coating lines shall also maintain and report certified product data sheets for each coating applied on each line.” SR at 13; *see* Prop. 218 at 39-40, Prop. 219 at 37.

Subsection (d). The Agency proposed to amend subsection (d) “to provide that, for paper coating lines utilizing the daily weighted averaging alternative, VOM content information shall be maintained and/or reported in terms of weight of VOM per weight of solids or coatings, as applicable, as applied each day on each coating line.” SR at 13; *see* Prop. 218 at 40-43, Prop. 219 at 37-40. The Agency also proposed to amend this subsection “to provide that metal

furniture and large appliance coating lines utilizing the daily weighted averaging alternative maintain and/or report VOM content information in terms of weight of VOM per volume of each coating or solids, as applicable, as applied each day on each coating line.” SR at 13; *see* Prop. 218 at 40-43, Prop. 219 at 37-40.

Subsection (e). The Agency proposed to amend subsection (e) to provide that coating lines complying through the alternative emission limitations must comply with the recordkeeping and reporting requirements specified in the subsection. SR at 13-14; *see* Prop. 218 at 43, Prop. 219 at 40.

Subsection (g). The Agency proposed to add a new subsection (g) establishing “recordkeeping and reporting requirements for paper, metal furniture, and large appliance coating lines subject to the work practice requirements set forth in Section 218/219.218.” SR at 14; *see* Prop. 218 at 46, Prop. 219 at 43-44.

Section 218/219.212: Cross-Line Averaging to Establish Compliance for Coating Lines. Existing Section 218/219.212 allows specified coating lines to establish compliance with VOM content limitations through cross-line averaging. *See* 35 Ill. Adm. Code 218.212, 219.212. The Agency proposed “amending this Section to provide that the cross-line averaging alternative is not available to coating lines subject to the revised VOM content limitations.” *See* SR at 14; *see* Prop. 218 at 47, Prop. 219 at 44.

Section 218/219.218: Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings: The Agency proposed to add a new section setting “forth work practice requirements for cleaning materials and/or cleaning-related activities associated with paper, metal furniture, and large appliance coating lines.” SR at 14. The Agency generally proposed

that subject coating lines store all VOM-containing materials in closed containers, ensure that mixing and storage containers used for VOM-containing materials are kept closed at all times except when in use, minimize spills of VOM-containing materials, convey such materials from one location to another in closed containers or pipes, and minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment. SR. at 14; *see* Prop. 218 at 48-49, Prop. 219 at 48-49.

The Agency’s proposal originally sought to require in Section 218/219.204 that metal furniture and large appliance coating lines employ specific application methods. SR at 11; *see* Prop. 218 at 14-15, 16-17, Prop. 219 at 13-14, 16. Responding to a question at the first hearing, the Agency indicated that it would consider whether these requirements should remain in that Section or should be codified in a different section. *See* Tr.1 at 19-20. In its motion to amend, the Agency proposed to place these application method limitations in Section 218/219.218, which addresses work practice standards, instead of Section 218/219.204. Mot. Amend at 1-5 (¶3). As noted above, the Board has granted the Agency’s motion to amend.

Those application methods include electrostatic application, HVLP spray, flow coat, roller coat, dip coat including electrodeposition, or other coating applications with a transfer efficiency equivalent to or better than that achieved by HVLP spraying. Mahajan Test. at 4-5; *see Mot. Amend* at 4-5. Responding to a question at the first hearing, the Agency explained its basis for these requirements. The Agency stated that the listed methods are more efficient in terms of applying solids to a substrate. Tr.1 at 17. The Agency indicated that, while a spray gun may provide 25% efficiency, the listed methods provide “more than 40, 60, even 70, 90 percent efficiencies.” *Id.* The Agency stated that these higher efficiencies reduce VOM emissions from the coating operations and are recommended by the CTG. *Id.* at 17-18.

CONCLUSION

The Board proposes for final adoption amendments to its regulations governing VOM emissions in Parts 218 and 219 (35 Ill. Adm. Code 218, 219). Substantively, the Board is adopting the Agency’s proposal including changes reflected in the Agency’s motion to amend, which the Board has granted above. *See Mot. Amend.* The Board also makes non-substantive changes, including those offered by JCAR, which are not addressed in this opinion.

ORDER

The Board directs the Clerk to file the following adopted rule with the Secretary of State for publication in the *Illinois Register*. Proposed additions are underlined, and proposed deletions appear stricken.

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

PART 218
 ORGANIC MATERIAL EMISSION STANDARDS AND
 LIMITATIONS FOR THE CHICAGO AREA

SUBPART A: GENERAL PROVISIONS

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218.100	Introduction
218.101	Savings Clause
218.102	Abbreviations and Conversion Factors
218.103	Applicability
218.104	Definitions
218.105	Test Methods and Procedures
218.106	Compliance Dates

218.107	Operation of Afterburners
218.108	Exemptions, Variations, and Alternative Means of Control or Compliance Determinations
218.109	Vapor Pressure of Volatile Organic Liquids
218.110	Vapor Pressure of Organic Material or Solvent
218.111	Vapor Pressure of Volatile Organic Material
218.112	Incorporations by Reference
218.113	Monitoring for Negligibly-Reactive Compounds
218.114	Compliance with Permit Conditions

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section	
218.119	Applicability for VOL
218.120	Control Requirements for Storage Containers of VOL
218.121	Storage Containers of VPL
218.122	Loading Operations
218.123	Petroleum Liquid Storage Tanks
218.124	External Floating Roofs
218.125	Compliance Dates
218.126	Compliance Plan (Repealed)
218.127	Testing VOL Operations
218.128	Monitoring VOL Operations
218.129	Recordkeeping and Reporting for VOL Operations

SUBPART C: ORGANIC EMISSIONS FROM MISCELLANEOUS EQUIPMENT

Section	
218.141	Separation Operations
218.142	Pumps and Compressors
218.143	Vapor Blowdown
218.144	Safety Relief Valves

SUBPART E: SOLVENT CLEANING

Section	
218.181	Solvent Cleaning in General
218.182	Cold Cleaning
218.183	Open Top Vapor Degreasing
218.184	Conveyorized Degreasing
218.185	Compliance Schedule (Repealed)
218.186	Test Methods

SUBPART F: COATING OPERATIONS

Section	
218.204	Emission Limitations
218.205	Daily-Weighted Average Limitations
218.206	Solids Basis Calculation
218.207	Alternative Emission Limitations
218.208	Exemptions from Emission Limitations
218.209	Exemption from General Rule on Use of Organic Material
218.210	Compliance Schedule
218.211	Recordkeeping and Reporting
218.212	Cross-Line Averaging to Establish Compliance for Coating Lines
218.213	Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines
218.214	Changing Compliance Methods
218.215	Wood Furniture Coating Averaging Approach
218.216	Wood Furniture Coating Add-On Control Use
218.217	Wood Furniture Coating Work Practice Standards
<u>218.218</u>	<u>Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings</u>

SUBPART G: USE OF ORGANIC MATERIAL

Section	
218.301	Use of Organic Material
218.302	Alternative Standard
218.303	Fuel Combustion Emission Units
218.304	Operations with Compliance Program

SUBPART H: PRINTING AND PUBLISHING

Section	
218.401	Flexographic and Rotogravure Printing
218.402	Applicability
218.403	Compliance Schedule
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SUBPART QQ: MISCELLANEOUS FORMULATION MANUFACTURING PROCESSES

Section	
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218.943	Permit Conditions (Repealed)
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SUBPART RR: MISCELLANEOUS ORGANIC CHEMICAL
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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 at R91-7 at 15 Ill. Reg. 12231, effective August 16, 1991; amended in R91-24 at 16 Ill. Reg. 13564, effective August 24, 1992; amended in R91-28 and R91-30 at 16 Ill. Reg. 13864, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16636, effective September 27, 1993; amended in R93-14 at 18 Ill. Reg. 1945, effective January 24, 1994; amended in R94-12 at 18 Ill. Reg. 14973, effective September 21, 1994; amended in R94-15 at 18 Ill. Reg. 16392, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16950, effective November 15, 1994; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6848,

effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7359, effective May 22, 1995; amended in R96-13 at 20 Ill. Reg. 14428, effective October 17, 1996; amended in R97-24 at 21 Ill. Reg. 7708, effective June 9, 1997; amended in R97-31 at 22 Ill. Reg. 3556, effective February 2, 1998; amended in R98-16 at 22 Ill. Reg. 14282, effective July 16, 1998; amended in R02-20 at 27 Ill. Reg. 7283, effective April 8, 2003; amended in R04-12/20 at 30 Ill. Reg. 9684, effective May 15, 2006; amended in R06-21 at 31 Ill. Reg. 7086, effective April 30, 2007; amended in R08-8 at 32 Ill. Reg. 14874, effective August 26, 2008; amended in R10-10 at 34 Ill. Reg. ____, effective _____; amended in R10-08 at 34 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 218.106 Compliance Dates

- a) Except as otherwise provided in this Section or as otherwise provided in a specific Subpart of this Part, compliance with the requirements of all rules is required by July 1, 1991, or September 1, 1991, for all sources located in Cook, DuPage, Kane, Lake, McHenry, or Will Counties, consistent with the appropriate provisions of Section 218.103 of this Subpart.
- b) Except as otherwise provided in this Section or as otherwise provided in a specific Subpart of this Part, compliance with the requirements of this Part is required by November 15, 1993, for all sources located in Aux Sable Township or Goose Lake Township in Grundy County, or in Oswego Township in Kendall County.
- c) All emission units which meet the applicability requirements of Sections 218.402(a)(2), 218.611(b), 218.620(b), 218.660(a), 218.680(a), 218.920(b), 218.940(b), 218.960(b) or 218.980(b) of this Part, including emission units at sources which are excluded from the applicability criteria of Sections 218.402(a)(1), 218.611(a), 218.620(a), 218.920(a), 218.940(a), 218.960(a), or 218.980(a) of this Part by virtue of permit conditions or other enforceable means, must comply with the requirements of Subparts H, Z, AA, CC, DD, PP, QQ, RR or TT of this Part, respectively, by March 15, 1995. Any owner or operator of an emission unit which has already met the applicability requirements of Sections 218.402(a)(1), 218.611(a), 218.620(a), 218.920(a), 218.940(a), 218.960(a) or 218.980(a) of this Part on or by the effective date of this subsection is required to comply with all compliance dates or schedules found in Sections 218.106(a) or 218.106(b), as applicable.
- d) Any owner or operator of a source with an emission unit subject to the requirements of Section 218.204(m)(2) or (m)(3) of this Part shall comply with those requirements by March 25, 1995.
- e) Any owner or operator of a source subject to the requirements of Section 218.204(c)(2), 218.204(g)(2), or 218.204(h)(2) of this Part shall comply with the

applicable requirements in the applicable subsections, as well as all applicable requirements in Sections 218.205 through 218.214 and 218.218, by May 1, 2011.

(Source: Amended at 34 Ill. Reg. ____, effective _____)

SUBPART F: COATING OPERATIONS

Section 218.204 Emission Limitations

Except as provided in Sections 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216 of this Subpart, 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. Except as otherwise provided in Section 218.204(c), 218.204(g), 218.204(h), and ~~Section 218.204(l)~~, 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 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(c) of this Subpart except where noted. (Note: The equation presented in Section 218.206 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:

a)	Automobile or Light-Duty Truck Coating	kg/l	lb/gal
	1) Prime coat	0.14	(1.2)
		0.14*	(1.2)*
	2) Primer surface coat	1.81	(15.1)
		1.81*	(15.1)*

(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 shall be based on the daily-weighted average from an entire primer surfacer operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 218.105(b) and the recordkeeping and reporting requirements specified in Section 218.211(f). Testing to demonstrate compliance 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 218.205 does not apply to the primer surfacer

limitation.)

3)	Topcoat	kg/l	lb/gal
		1.81	(15.1)
		1.81*	(15.1)*

(Note: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire topcoat operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 218.105(b) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(f). Testing to demonstrate compliance 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 218.205 of this Part does not apply to the topcoat limitation.)

4)	Final repair coat	kg/l	lb/gal
		0.58	(4.8)
		0.58*	(4.8)*
b)	Can Coating	kg/l	lb/gal
1)	Sheet basecoat and overvarnish		
	A) Sheet basecoat	0.34	(2.8)
		0.26*	(2.2)*
	B) Overvarnish	0.34	(2.8)
		0.34	(2.8)*
2)	Exterior basecoat and overvarnish	0.34	(2.8)
		0.25*	(2.1)*
3)	Interior body spray coat		
	A) Two piece	0.51	(4.2)
		0.44*	(3.7)*
	B) Three piece	0.51	(4.2)
		0.51*	(4.2)*
4)	Exterior end coat	0.51	(4.2)
		0.51*	(4.2)*
5)	Side seam spray coat	0.66	(5.5)

		0.66*	(5.5)*
6)	End sealing compound coat	0.44 0.44*	(3.7) (3.7)*
c)	Paper Coating	kg/l 0.35 0.28*	lb/gal (2.9) (2.3)*
1)	<u>Prior to May 1, 2011:</u>	<u>kg/l</u> 0.28	<u>lb/gal</u> (2.3)
2)	<u>On and after May 1, 2011:</u>	<u>kg VOM/kg</u> <u>(lb VOM/lb)</u> <u>solids</u> <u>applied</u>	<u>kg VOM/kg</u> <u>(lb VOM/lb)</u> <u>coatings</u> <u>applied</u>
	A) <u>Pressure sensitive tape and label surface coatings</u>	0.20	(0.067)
	B) <u>All other paper coatings</u>	0.40	(0.08)

~~3)(Note: The paper coating limitation set forth in this subsection (c) shall not apply to any owner or operator of any paper coating line on which flexographic or rotogravure printing is performed if the paper coating line complies with the emissions limitations in Section 218.401 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 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)	<u>Prior to May 1, 2011:</u>		
		<u>kg/l</u>	<u>lb/gal</u>
A)	<u>Air dried</u>	<u>0.34</u>	<u>(2.8)</u>
B)	<u>Baked</u>	<u>0.28</u>	<u>(2.3)</u>
2)	<u>On and after May 1, 2011:</u>		
		<u>kg/l</u>	<u>kg/l (lb/gal)</u>
		<u>(lb/gal)</u>	<u>solids applied</u>
A)	<u>General, One-Component</u>	<u>0.275</u>	<u>0.40</u>
		<u>(2.3)</u>	<u>(3.3)</u>
B)	<u>General, Multi-Component</u>		
	i) <u>Air Dried</u>	<u>0.340</u>	<u>0.55</u>
		<u>(2.8)</u>	<u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.275</u>	<u>0.40</u>
		<u>(2.3)</u>	<u>(3.3)</u>
C)	<u>Extreme High Gloss</u>		
	i) <u>Air Dried</u>	<u>0.340</u>	<u>0.55</u>
		<u>(2.8)</u>	<u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
D)	<u>Extreme Performance</u>		
	i) <u>Air Dried</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
E)	<u>Heat Resistant</u>		
	i) <u>Air Dried</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>

F)	<u>Metallic</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
G)	<u>Pretreatment Coatings</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
H)	<u>Solar Absorbent</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
1)	<u>Air dried</u>	<u>0.36</u> <u>0.34*</u>	<u>(3.0)</u> <u>(2.8)*</u>
2)	<u>Baked</u>	<u>0.36</u> <u>0.28*</u>	<u>(3.0)</u> <u>(2.3)*</u>
3)	<u>(Note: On and after May 1, 2011, these limitations set forth in this subsection (g) 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.)</u>		
3)	<u>On and after May 1, 2011, an owner or operator of a coating line subject to the limitations in this subsection (g) shall apply all coatings using one or more of the following application methods:</u>		
	<u>A) <u>Electrostatic spray;</u></u>		
	<u>B) <u>High volume low pressure (HVLP) spray;</u></u>		
	<u>C) <u>Flow coating. For the purposes of this subsection (g), flow coating means a non-atomized technique of applying coating to a substrate with a fluid nozzle with no air supplied to the nozzle;</u></u>		
	<u>D) <u>Roll coating;</u></u>		
	<u>E) <u>Dip coating, including electrodeposition. For purposes of this subsection (g), 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; or</u></u>		

~~F) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if such method is approved in writing by the Agency.~~

h) Large Appliance Coating

1)	<u>Prior to May 1, 2011:</u>		
	A) <u>Air Dried</u>	<u>kg/l</u> <u>0.34</u>	<u>lb/gal</u> <u>(2.8)</u>
	B) <u>Baked</u>	<u>0.28</u>	<u>(2.3)</u>
2)	<u>On and after May 1, 2011:</u>	<u>kg/l</u> <u>(lb/gal)</u>	<u>kg/l (lb/gal)</u> <u>solids</u> <u>applied</u>
	A) <u>General, One Component</u>	<u>0.275</u> <u>(2.3)</u>	<u>0.40</u> <u>(3.3)</u>
	B) <u>General, Multi-Component</u>		
	i) <u>Air Dried</u>	<u>0.340</u> <u>(2.8)</u>	<u>0.55</u> <u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.275</u> <u>(2.3)</u>	<u>0.40</u> <u>(3.3)</u>
	C) <u>Extreme High Gloss</u>		
	i) <u>Air Dried</u>	<u>0.340</u> <u>(2.8)</u>	<u>0.55</u> <u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
	D) <u>Extreme Performance</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
	E) <u>Heat Resistant</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>

		<u>(3.0)</u>	<u>(5.1)</u>
F)	<u>Metallic</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
G)	<u>Pretreatment Coatings</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
H)	<u>Solar Absorbent</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>

~~3) **BOARD NOTE:** These The limitations set forth in this subsection (h) 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 l (1 quart) in any one rolling eight-hour period. On and after May 1, 2011, these limitations shall also 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.~~

~~3) On and after May 1, 2011, an owner or operator of a coating line subject to the limitations in this subsection (h) shall 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 (h), 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) Brush coating;~~

~~F) Dip coating, including electrodeposition. For purposes of this subsection (h), 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; or~~

~~G) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if such method is approved in writing by the Agency.~~

i)	Magnet Wire Coating	kg/1	lb/gal
		0.20	(1.7)
		0.20*	(1.7)*
j)	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)	Marine engine coating		
A)	Air Dried	0.42	(3.5)
		0.42*	(3.5)*
B)	Baked		
i)	Primer/Topcoat	0.42	(3.5)
		0.42*	(3.5)*
ii)	Corrosion resistant basecoat	0.42	(3.5)
		0.28*	(2.3)*
C)	Clear Coating	0.52	(4.3)

		0.52*	(4.3)*
6)	Metallic Coating		
	A) Air Dried	0.42	(3.5)
		0.42*	(3.5)*
	B) Baked	0.36	(3.0)
		0.36	(3.0)*
7)	Definitions		
	A) For purposes of subsection 218.204(j)(5) of this Section, the following terms are defined:		
	i) "Corrosion resistant basecoat" means, for purposes of subsection 218.204(j)(5)(B)(ii) of this Section, 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.		
	ii) "Electrodeposition process" means, for purposes of subsection 218.204(j)(5) of this Section, 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.		
	iii) "Marine engine coating" means, for purposes of subsection 218.204(j)(5) of this Section, any extreme performance protective, decorative or functional coating applied to an engine that is used to propel watercraft.		
	B) For purposes of subsection 218.204(j)(6) of this Section, "metallic coating" means a coating which contains more than ¼ lb/gal of metal particles, as applied.		
k)	Heavy Off-Highway Vehicle Products Coating	kg/l	lb/gal
	1) Extreme performance prime coat	0.42	(3.5)
		0.42*	(3.5)*
	2) Extreme performance topcoat (air dried)	0.42	(3.5)
		0.42*	(3.5)*

- 3) Final repair coat (air dried) 0.42 (3.5)
0.42* (3.5)*
- 4) All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j) above.

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)

(Note: Prior to March 15, 1998, an owner or operator of a wood furniture coating operation subject to this Section 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), below:

		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 218.215 of this Subpart for use of an averaging approach;
- D) Achieve a reduction in emissions equivalent to the requirements of subsection (1)(2)(A) or (B) of this Section, as calculated using Section 218.216 of this Subpart; or
- E) Use a combination of the methods specified in subsections (1)(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) No source subject to the limitations of subsection (1)(2) or (3) of this Section and utilizing one or more wood furniture coating spray booths 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 (1)(2) or (3) of this Section shall comply with the requirements of Section 218.217 of this Subpart.

- C) Any source subject to the limitations of subsection (1)(2)(A) or (B) of this Section and utilizing one or more continuous coaters shall, for each continuous coater, use an initial coating which complies with the limitations of subsection (1)(2)(A) or (B) of this Section. The viscosity of the coating in each reservoir shall always be greater than or equal to the viscosity of the initial coating in the reservoir. The owner or operator 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)	Existing Diesel-Electric Locomotive Coating Lines in Cook County	kg/l	lb/gal
	1) Extreme performance prime coat	0.42 0.42*	(3.5) (3.5)*
	2) Extreme performance top-coat (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) High-temperature aluminum coating	0.72 0.72*	(6.0) (6.0)*
	5) All other coatings	0.36 0.36*	(3.0) (3.0)*
n)	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 base coats	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)	Headlamp lens coatings	0.89*	(7.4)*
o)		Plastic Parts Coating: Business Machine	kg/l	lb/gal
	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)*

(Source: Amended at 34 Ill. Reg. ____, effective _____)

Section 218.205 Daily-Weighted Average Limitations

No owner or operator of a coating line subject to the limitations of Section 218.204 of this Subpart and complying by means of this Section shall operate the subject coating line unless the owner or operator has demonstrated compliance with subsection (a), (b), (c), (d), (e), (f), (g), (h), ~~or (i), or (j)~~ of this Section (depending upon the category of coating) through the applicable coating analysis test methods and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(d) of this Subpart:

- a) No owner or operator of a coating line subject to only one of the limitations from among Section 218.204(a)(1), (a)(4), ~~(e)~~, (d), (e), (f), ~~or (i), or, prior to May 1, 2011, (c)~~ 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) No owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 218.204(j) 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 which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(j) 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, or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(j) of this Subpart, during the same day, the owner or operator 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) No owner or operator of a can coating line subject to the limitations of Section 218.204(b) of this Subpart shall operate the subject coating line using a coating with a VOM content in excess of the limitations specified in Section 218.204(b) of this Subpart unless all of the following requirements are met:
- 1) An alternative daily emission limitation shall be determined for the can coating operation, i.e., for all of the can coating lines at the source, according to subsection (c)(2) of this Section. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation.

$$E_d = \sum_{i=1}^n V_i C_i$$

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 which 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 which are specifically exempted from the definition of VOM).

- 2) The alternative daily emission limitation (A_d) 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:

$$A_d = \sum_{i=1}^n V_i L_i \left(\frac{D_i - C_i}{D_i - L_i} \right)$$

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 which 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 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 which are specifically exempted from the definition of VOM);

L_i = The VOM emission limitation for each surface coating applied as specified in Section 218.204(b) of this Subpart in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

- d) No owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 218.204(k) 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 which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(k) of this Subpart, during the same day, the owner or operator 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) No owner or operator of a wood furniture coating line subject to the limitations of Section 218.204(l)(1) or (l)(3) of this Subpart shall apply coatings to wood furniture on the subject coating line unless the requirements of subsection (e)(1) or subsection (e)(2) of this Section, in addition to the requirements specified in the note to Section 218.204(l)(1) of this Subpart, are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(l)(1) or (l)(3) of this Subpart, during the same day, the owner or operator 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) No owner or operator of an existing diesel-electric locomotive coating line in Cook County, subject to the limitations of Section 218.204(m) of this Subpart shall apply coatings to diesel-electric locomotives 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 which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(m) 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, or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(m) of this Subpart, during the same day, the owner or operator 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) must be satisfied.
- g) No owner or operator of a plastic parts coating line, subject to the limitations of Section 218.204(n) or (o) of this Subpart shall apply coatings to business machine or automotive/transportation plastic parts 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 which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(n) or (o) 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; or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(n) or (o) of this Subpart, during the same day, the owner or operator 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) must be satisfied.
- h) No owner or operator of a metal furniture coating line, subject to the limitations of Section 218.204(g) of 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 which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(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 shall not exceed the coating VOM content limit corresponding to the category of coating used; or

- 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(g) of this Subpart, during the same day, the owner or operator 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) must be satisfied.
- i) No owner or operator of a large appliance coating line, subject to the limitations of Section 218.204(h) of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (i)(1) or (i)(2) of this Section are met:
 - 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(h) of this Subpart, during the same day, the owner or operator 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) must be satisfied.
 - j) On and after May 1, 2011, no owner or operator of a paper coating line subject to the limitations of Section 218.204(c) of this Subpart shall apply coatings on the subject coating line unless the requirements in 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 218.204(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 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 218.204(c) 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), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

(Source: Amended at 34 Ill. Reg. ____, effective _____)

Section 218.207 Alternative Emission Limitations

- a) Any owner or operator of a coating line subject to Section 218.204 of this Subpart may comply with this Section, rather than with Section 218.204 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 subsections (c), (d), (e), (f), (g), (h), (i), (j), ~~(k)~~, or (l) 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 218.105 of this Part and the recordkeeping and reporting requirements specified in Section 218.211(e) of this Subpart; and the control device is equipped with the applicable monitoring equipment specified in Section 218.105(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)~~, or (l) of this Section may be used as an alternative to compliance with Section 218.204 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 218.204 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 218.204 of this Subpart;
 - B) Calculate "S" according to the equation in Section 218.206 of this Subpart;

- C) Calculate the overall efficiency required according to Section 218.105(e) of this Part. For the purposes of calculating this value, according to the equation in Section 218.105(e)(2) of this Part, VOM_1 is equal to the value of "S" as determined above in subsection (b)(2)(B) of this Section.
- c) No owner or operator of a coating line subject to only one of the emission limitations from among Section 218.204(a)(1), (a)(4), ~~(e)~~, (d), (e), (f), ~~(i)~~, or prior to May 1, 2011, (c) of this Subpart and equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met. No owner or operator of a coating line subject to Section 218.204(a)(2) or 218.204(a)(3) and equipped with a capture system and control device shall operate the coating line unless the owner or operator demonstrates compliance with such limitation in accordance with the topcoat protocol referenced in Section 218.105(b).
- d) No owner or operator of a miscellaneous metal parts and products coating line ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(j) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/1 [3.5 lbs/gal], and ~~that which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- e) No owner or operator of a heavy off-highway vehicle products coating line ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(k) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/1 [3.5 lbs/gal]), and ~~that which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- f) No owner or operator of an existing diesel-electric locomotive coating line in Cook County ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(m) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/1 [3.5 lbs/gal]), and ~~that which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- g) No owner or operator of a wood furniture coating line ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(l) of this Subpart (e.g., all coatings used on the line are subject to 0.67 kg/1 [5.6 lbs/gal]), and ~~that which~~ is equipped with a capture system and control device 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 218.204(1) of this Subpart must also be met.

- h) No owner or operator of a can coating line ~~that which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (h)(1) or (h)(2) of this Section are met.
- 1) An alternative daily emission limitation shall be determined for the can coating operation, i.e., for all of the can coating lines at the source, according to Section 218.205(c)(2) of this Subpart. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation:

$$E_d = \sum_{i=1}^n V_i C_i (1 - F_i)$$

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 which 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 which 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.

- i) No owner or operator of a plastic parts coating line, ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(n) or (o) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l (~~{~~3.5 lbs/gal~~}~~)), and ~~that which~~ is equipped with a capture system and control device 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, no owner or operator of a metal furniture coating line ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(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 which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- k) Prior to May 1, 2011, no owner or operator of a large appliance coating line ~~that which~~ applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(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 which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- l) On and after May 1, 2011, 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 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 218.204 of this Subpart by utilizing a combination of low-VOM coatings and a capture system and control device.

(Source: Amended at 34 Ill. Reg. ____, effective ____)

Section 218.210 Compliance Schedule

Every owner or operator of a coating line (of a type included within Section 218.204 of this Subpart) shall comply with the requirements of Section 218.204, 218.205, 218.207 or 218.208 and Section 218.211 or Sections 218.212 and 218.213 of this Subpart in accordance with the appropriate compliance schedule as specified in subsection (a), (b), (c), (d), (e), ~~or (f)~~, or (g) of

this Section below:

- a) No owner or operator of a coating line ~~that~~^{which} is exempt from the limitations of Section 218.204 of this Subpart because of the criteria in Section 218.208(a) or (b) of this Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Section 218.211(b) of this Subpart.
- b) No owner or operator of a coating line complying by means of Section 218.204 of this Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.204 and 218.211(c) of this Subpart.
- c) No owner or operator of a coating line complying by means of Section 218.205 of this Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.205 and 218.211(d) of this Subpart.
- d) No owner or operator of a coating line complying by means of Section 218.207 of this Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.207 and 218.211(e) of this Subpart.
- e) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 218.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 218.204, 218.205 or 218.207 of this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with, respectively, the applicable requirements in Section 218.204, or the alternative control options in Section 218.205 or 218.207 and the requirements of Section 218.211.
- f) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 218.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 218.212 of this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with the requirements of Sections 218.212 and 218.213 of this Subpart.
- g) No owner or operator of a coating line subject to the emission limitations in Section 218.204(c)(2), 218.204(g)(2), or 218.204(h)(2) of this Subpart shall operate that coating line on or after a date consistent with Section 218.106(e) of this Part, unless the owner or operator has complied with, and continues to comply with, Section 218.204(c)(2), 218.204(g)(2), or 218.204(h)(2), as applicable, or the alternative control options in Section 218.205 or 218.207, and all applicable requirements in Sections 218.211 and 218.218 of this Subpart.

(Source: Amended at 34 Ill. Reg. ____, effective _____)

Section 218.211 Recordkeeping and Reporting

- a) The VOM content of each coating and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in Section 218.105 of this Part to establish the records required under this Section.
- b) Any owner or operator of a coating line ~~that~~which is exempted from the limitations of Section 218.204 of this Subpart because of Section 218.208(a) or (b) of this Subpart shall comply with the following:
 - 1) For sources exempt under Section 218.208(a) of this Subpart, by a date consistent with Section 218.106 of this Part, the owner or operator of a coating line or a group of coating lines referenced in subsection (b) of this Section shall certify to the Agency that the coating line or group of coating lines is exempt under the provisions of Section 218.208(a) of this Subpart. Such certification shall include:
 - A) A declaration that the coating line or group of coating lines is exempt from the limitations of Section 218.204 of this Subpart because of Section 218.208(a) of this Subpart; and
 - B) Calculations ~~that~~which demonstrate that the combined VOM emissions from the coating lines or group of coating lines never exceed 6.8 kg (15 lbs) per day before the application of capture systems and control devices. The following equation shall be used to calculate total VOM emissions:

$$T_e = \sum_{j=1}^m \sum_{i=1}^n (A_i B_i)_j$$

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 218.104 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~~which 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~~which 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 shall be described in the certification to the Agency.
- 2) For sources exempt under Section 218.208(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) of this Section shall certify to the Agency that the source is exempt under the provisions of Section 218.208(b) of this Subpart. Such certification shall include:
- A) A declaration that the source is exempt from the limitations of Section 218.204(l) of this Subpart because of Section 218.208(b) of this Subpart; and
 - B) Calculations which demonstrate that the source meets the criteria for exemption because of Section 218.208(b) of this Subpart.
- 3) For sources exempt under Section 218.208(a) of this Subpart, on and after a date consistent with Section 218.106 of this Part, the owner or operator of a coating line or group of coating lines referenced in this subsection 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 which are specifically exempted from the definition of VOM) as applied each day on each coating

line.

- 4) For sources exempt under Section 218.208(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) 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 218.106 of this Part, the owner or operator of a coating line or group of coating lines exempted from the limitations of Section 218.204 of this Subpart because of Section 218.208(a) 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 218.204(l) of this Subpart because of Section 218.208(b) of this Subpart shall notify the Agency if the source's VOM emissions exceed the limitations of Section 218.208(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 218.204 of this Subpart other than Section 218.204(a)(2) or (a)(3) of this Subpart and complying by means of Section 218.204 of this Subpart shall comply with the following:
- 1) By a date consistent with Section 218.106 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 218.205, Section 218.207, Section 218.215, or Section 218.216 of this Subpart to Section 218.204 of this Subpart; the owner or operator of a subject coating line shall certify to the Agency that the coating line will be in compliance with Section 218.204 of this Subpart on and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date. TheSuch

certification 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 which are specifically exempted from the definition of VOM) as applied each day on each coating line; ~~and~~
 - C) On and after March 15, 1998, for coating lines subject to the limitations of Section 218.204(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~~
 - D) For coating lines subject to the limitations of Section 218.204(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
 - E) For coating lines subject to the limitations of Section 218.204(g)(2) or 218.204(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.
- 2) On and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date, the owner or operator of a subject coating line 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 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;
 - C) On and after March 15, 1998, for coating lines subject to the limitations of Section 218.204(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; ~~and~~

- D) On and after March 15, 1998, for wood furniture coating spray booths subject to the limitations of Section 218.204(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 218.204(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; and
 - F) For coating lines subject to the limitations of Section 218.204(g)(2) or 218.204(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.
- 3) On and after a date consistent with Section 218.106 of this Part, the owner or operator of a subject coating line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 218.204 of this Subpart shall be reported by sending a copy of 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 218.204 of this Subpart to Section 218.205 or Section 218.207 of this Subpart, the owner or operator shall comply with all requirements of subsection (d)(1) or (e)(1) of this Section below, respectively. Upon changing the method of compliance from Section 218.204 of this Subpart to Section 218.205 of this Subpart or Section 218.207 of this Subpart, the owner or operator shall comply with all requirements of subsection (d) or (e) of this Section, respectively.
- d) Any owner or operator of a coating line subject to the limitations of Section 218.204 of this Subpart and complying by means of Section 218.205 of this Subpart shall comply with the following:
- 1) By a date consistent with Section 218.106 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 218.204 or Section 218.207 of this Subpart to Section 218.205 of this Subpart; the owner or operator of the subject coating line shall certify to the Agency that the coating line

will be in compliance with Section 218.205 of this Subpart on and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date. The Such-certification shall include:

- A) The name and identification number of each coating line which will comply by means of Section 218.205 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 218.204(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 218.204(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 218.204(g)(2) or 218.204(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.
 - ~~G)~~ 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.
 - ~~H)~~ The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
 - ~~I)~~ 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 218.106 of this Part, or on and after the initial start-up date, the owner or operator of a subject coating line 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 which 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 218.204(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 218.204(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 218.204(g)(2) or 218.204(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.
 - ~~F) The daily-weighted average VOM content of all coatings as applied on each coating line as defined in Section 218.104 of this Part.~~
- 3) On and after a date consistent with Section 218.106 of this Part, the owner or operator of a subject coating line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 218.205 of this Subpart shall be reported by sending a copy of 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 218.205 of this Subpart to Section 218.204 or Section 218.207 of this Subpart, the owner or operator shall comply with all requirements of subsection (c)(1) or (e)(1) of this Section, respectively. Upon changing the method of compliance with this subpart from Section 218.205 to Section

218.204 or Section 218.207 of this Subpart, the owner or operator shall comply with all requirements of subsection (c) or (e) of this Section, respectively.

- e) Any owner or operator of a coating line subject to the limitations of Section 218.207 of this Subpart and complying by means of Section 218.207(c), (d), (e), (f), (g), ~~or (h)~~, or (l) of this Subpart shall comply with the following:
- 1) By a date consistent with Section 218.106 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 218.204 or Section 218.205 of this Subpart to Section 218.207 of this Subpart, the owner or operator of the subject coating line 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 218.207 of this Subpart on and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date.
 - 2) On and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date, the owner or operator of a subject coating line 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 pursuant to Section 218.207(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 218.106 of this Part, the owner or operator of a subject coating line shall notify the Agency in the following instances:
 - A) Any record showing violation of Section 218.207 of this Subpart shall be reported by sending a copy of 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 218.207 of this Subpart to Section 218.204 or Section 218.205 of this Subpart, the owner or operator 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 218.207 of this Subpart to Section 218.204 or Section 218.205 of this Subpart, the owner or operator 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 subject to the limitations of Section 218.204(a)(2) or (a)(3) of this Subpart shall comply with the following:
- 1) By a date consistent with Section 218.106 of this Part, or upon initial start-up of a new coating operation, the owner or operator of a subject coating operation shall certify to the Agency that the operation will be in compliance with Section 218.204 of this Subpart on and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date. ~~The~~Such certification shall include:
 - A) The name and identification number of each coating operation which will comply by means of Section 218.204(a)(2) and (a)(3) 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~~below~~.
 - H) An example format for presenting the records required in subsection (f)(2) of this Section~~below~~.
- 2) On and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date, the owner or operator of a subject coating operation shall collect and record all of the following information each day for each operation and maintain the information at the source for a period of three years:
- A) All information necessary to calculate the daily-weighted average VOM emissions from the coating operations in kg (lbs) per 1 (gal) of coating solids deposited in accordance with the proposal submitted, and approved pursuant to Section 218.204(a)(2) or (a)(3) 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~~~~device(s) is~~ 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 218.106 of this Part or on and after the initial start-up date, the owner or operator of a subject coating operation shall determine and record the daily VOM emissions in kg (lbs) per 1 (gal) of coating solids deposited in accordance with the proposal submitted and approved pursuant to Section 218.204(a)(2) or (a)(3) 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 218.106 of this Part, the owner or operator of a subject coating operation shall notify the Agency in the

following instances:

- A) Any record showing a violation of Section 218.204(a)(2) or (a)(3) of this Subpart shall be reported by sending a copy of such record to the Agency within 15 days from the end of the month in which the violation occurred.
 - B) The owner or operator shall notify the Agency of any change to the operation at least 30 days before the change is effected. The Agency shall determine whether or not compliance testing is required. If the Agency determines that compliance testing is required, then the owner or operator shall submit a testing proposal to the Agency within 30 days and test within 30 days of the approval of the proposal by the Agency and USEPA.
- g) On and after a date consistent with Section 218.106(e) of this Part, or on and after the initial startup date, whichever is later, the owner or operator of a coating line subject to the requirements of Section 218.218 of this Subpart shall comply with the following:
- 1) By May 1, 2011, or upon initial startup, 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 218.218 of this Subpart;
 - 2) Notify the Agency of any violation of Section 218.218 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.

(Source: Amended at 34 Ill. Reg. ____, effective _____)

Section 218.212 Cross-Line Averaging to Establish Compliance for Coating Lines

- a) On and after March 15, 1996, any owner or operator of a coating line subject to the limitations set forth in Section 218.204 of this Subpart, except coating lines subject to the limitations in Section 218.204(c)(2), (g)(2), or (h)(2) of this Subpart, and with coating lines in operation prior to January 1, 1991 ("pre-existing coating lines"), may, for pre-existing coating lines only, elect to comply with the requirements of this Section, rather than complying with the applicable emission limitations set forth in Section 218.204, if an operational change of the

type described below has been made after January 1, 1991, to one or more pre-existing coating lines at the source. An operational change occurs when a pre-existing coating line is replaced with a line using lower VOM coating for the same purpose as the replaced line ("replacement line"). A source electing to rely on this Section to demonstrate compliance with the requirements of this Subpart shall operate pursuant to federally enforceable permit conditions approved by the Agency and USEPA.

- b) An owner or operator of pre-existing coating lines subject to a VOM content limitation in Section 218.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart must establish, by use of the equations in subsection (d) of this Section, that the calculated actual daily VOM emissions from all participating coating lines, as defined below, are less than the calculated daily allowable VOM emissions from the same group of coating lines. For any pre-existing coating line to be aggregated for the purposes of Section 218.212, 218.213, or 218.214 of this Subpart ("participating coating lines"), the source must establish that:
- 1) All coatings applied on the participating coating line shall, at all times, have a VOM content less than or equal to the applicable VOM content limitation for such coating listed in Appendix H of this Part; and
 - 2) On the date the source elects to rely on this Section to demonstrate compliance with this Subpart, all coatings applied on the participating coating line are not already in compliance with the VOM content limitation for such coating effective on or after March 15, 1996; or the participating coating line is a replacement line, as defined in subsection (a) of this Section with an operational change occurring on or after January 1, 1991.
- c) Notwithstanding subsection (a) of this Section, any owner or operator of a coating line subject to the limitations set forth in Section 218.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart, may also include as a participating coating line, until December 31, 1999, only, any replacement line that satisfies all of the following conditions:
- 1) The replacement line is operated as a powder coating line;
 - 2) The replacement line was added after July 1, 1988; and
 - 3) The owner or operator also includes as a participating coating line one or more coating lines that satisfy the criteria of a replacement line, as described in subsection (a) of this Section.
- d) To demonstrate compliance with this Section, a source shall establish the

following:

- 1) An alternative daily emission limitation shall be determined for all participating coating lines at the source according to subsection (d)(2) of this Section. All participating coating lines shall be factored in each day to demonstrate compliance. Provided compliance is established pursuant to the requirements in this subsection, nothing in this Section requires daily operation of each participating line. Actual daily emissions from all participating coating lines (E_d) shall never exceed the alternative daily emission limitation (A_d) and shall be calculated by use of the following equation:

$$E_d = \sum_{i=1}^n V_i C_i$$

where:

- E_d = Actual daily VOM emissions from participating coating lines in units of kg/day (lbs/day);
 - i = Subscript denoting a specific coating applied;
 - n = Total number of coatings applied by all participating 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 which are specifically exempted from the definition of VOM); and
 - 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 which are specifically exempted from the definition of VOM).
- 2) The alternative daily emission limitation (A_d) shall be determined for all participating coating lines at the source on a daily basis as follows:

$$A_d = A_1 + A_p$$

where A_1 and A_p are defined in subsections (d)(2)(A) and (d)(2)(B) of this Section.

- A) The portion of the alternative daily emissions limitation for coating operations at a source using non-powder coating (A_1) shall be determined for all such participating non-powder coating lines on a

daily basis as follows:

$$A_i = \sum_{i=1}^n V_i L_i \left(\frac{D_i - C_i}{D_i - L_i} \right)$$

where:

- A_i = 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 coatings applied in the participating coating lines;
- 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 which are specifically exempted from the definition of VOM);
- D_i = The density of VOM in each coating applied. For the purposes of calculating A_i , the density is 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);
- V_i = Volume of each coating applied for the day in units of l (gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM); and
- L_i = The VOM emission limitation for each coating applied, as specified in Section 218.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

- B) The portion of the alternative daily emission limitation for coating operations at a source using powdered coating (A_p) shall be determined for all such participating powder coating lines at the source on a daily basis as follows:

$$A_p = \sum_{h=1}^m \sum_{j=1}^n \frac{V_j L_j D_j K_h}{(D_j - L_j)}$$

where:

- A_p = The VOM emissions allowed for the day in units of kg/day (lbs/day);
- h = Subscript denoting a specific powder coating line;
- j = Subscript denoting a specific powder coating applied;
- m = Total number of participating powder coating lines;
- n = Total number of powder coatings applied in the participating coating lines;
- D_j = The assumed density of VOM in liquid coating, 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);
- V_j = Volume of each powder coating consumed for the day in units of l (gal) of coating; and
- L_j = The VOM emission limitation for each coating applied, as specified in Section 218.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM); and
- K = A constant for each individual coating line representing the ratio of the volume of coating solids consumed on the liquid coating system which has been replaced to the volume of powder coating consumed on the replacement line to accomplish the same coating job. This value shall be determined by the source based on tests conducted and records maintained pursuant to the requirements of Section 218.213 of this Subpart demonstrating the amount of coating solids consumed as both liquid powder. Test methods and recordkeeping requirements shall be approved by the Agency and USEPA and shall be contained in the source's operating permit as federally enforceable permit conditions, subject to the following restrictions:
- i) K cannot exceed 0.9 for non-recycled powder coating systems; or
 - ii) K cannot exceed 2.0 for recycled powder coating systems.

(Source: Amended at 34 Ill. Reg. ____, effective _____)

Section 218.218 Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings

- a) On and after May 1, 2011, every owner or operator of a source subject to the requirements of Section 218.204(c) of this Subpart shall:
- 1) Store all VOM-containing cleaning materials in closed containers;
 - 2) Ensure that mixing and storage containers used for VOM-containing materials are kept closed at all times except when depositing or removing those materials;
 - 3) Minimize spills of VOM-containing cleaning materials;
 - 4) Convey VOM-containing cleaning materials from one location to another in closed containers or pipes; and
 - 5) Minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment.
- b) On and after May 1, 2011, every owner or operator of a source subject to the requirements of Section 218.204(g) or 218.204(h) 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, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing those materials;
 - 3) Minimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials, and clean up spills immediately;
 - 4) Convey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes; ~~and~~
 - 5) Minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment; and
 - 6) Apply all coatings using one or more of the following application methods:
 - A) Electrostatic spray;

- B) High volume low pressure (HVLV) spray;
- C) Flow coating. For the purposes of this subsection (b), 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), 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, if subject to the requirements of Section 218.204(h); or
- G) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLV spraying, if such method is approved in writing by the Agency.

(Source: Added at 34 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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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. _____, effective _____; amended in R10-8 at 34 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 219.106 Compliance Dates

- a) Except as provided in subsection (b) below, 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) 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, 2011.

(Source: Amended at 34 Ill. Reg. _____, 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, 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. Except as otherwise provided in Section 219.204(c), 219.204(g), 219.204(h), and ~~Section 219.204(l)~~, 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 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:

a)	Automobile or Light-Duty Truck Coating	kg/l	lb/gal
	1) Prime coat	0.14	(1.2)
		0.14*	(1.2)*
	2) Primer surface coat	1.81	(15.1)
		1.81*	(15.1)*

(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 shall be based on the daily-weighted average from an entire primer surface operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance 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.)

3)	Topcoat	kg/l	lb/gal
		1.81	(15.1)
		1.81*	(15.1)*

(Note: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire topcoat operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance 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.)

4)	Final repair coat	kg/l	lb/gal
		0.58	(4.8)
		0.58*	(4.8)*
b)	Can Coating	kg/l	lb/gal
1)	Sheet basecoat and overvarnish		
	A) Sheet basecoat	0.34	(2.8)
		0.26*	(2.2)*
	B) Overvarnish	0.34	(2.8)
		0.34	(2.8)*
2)	Exterior basecoat and overvarnish	0.34	(2.8)
		0.25*	(2.1)*
3)	Interior body spray coat		
	A) Two piece	0.51	(4.2)
		0.44*	(3.7)*
	B) Three piece	0.51	(4.2)
		0.51*	(4.2)*
4)	Exterior end coat	0.51	(4.2)
		0.51*	(4.2)*
5)	Side seam spray coat	0.66	(5.5)

		0.66*	(5.5)*
6)	End sealing compound coat	0.44 0.44*	(3.7) (3.7)*
c)	Paper Coating	kg/l 0.35 0.28*	lb/gal (2.9) (2.3)*
1)	<u>Prior to May 1, 2011:</u>	<u>kg/l</u> 0.28	<u>lb/gal</u> (2.3)
2)	<u>On and after May 1, 2011:</u>	<u>kg VOM/kg</u> <u>(lb VOM/lb)</u> <u>solids</u> <u>applied</u>	<u>kg VOM/kg</u> <u>(lb VOM/lb)</u> <u>coatings</u> <u>applied</u>
	A) <u>Pressure sensitive tape and label surface coatings</u>	0.20	(0.067)
	B) <u>All other paper coatings</u>	0.40	(0.08)
3)	(Note: The paper coating limitation set forth in this subsection (c) shall not apply to any owner or operator of any paper coating line on which flexographic or rotogravure printing is performed if the paper coating line complies with the emissions limitations in Section 219.401 of this Part. In addition, screen printing on paper is not regulated as paper coating, but is regulated under Subpart TT of this Part. <u>On and after May 1, 2011, the paper coating limitation shall also 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.</u>)		
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)	<u>Prior to May 1, 2011:</u>	<u>kg/l</u>	<u>lb/gal</u>

A)	<u>Air Dried</u>	<u>0.34</u>	<u>(2.8)</u>
B)	<u>Baked</u>	<u>0.28</u>	<u>(2.3)</u>
2)	<u>On and after May 1, 2011:</u>	<u>kg/l</u>	<u>kg/l (lb/gal)</u>
		<u>(lb/gal)</u>	<u>solids applied</u>
A)	<u>General, One Component</u>	<u>0.275</u>	<u>0.40</u>
		<u>(2.3)</u>	<u>(3.3)</u>
B)	<u>General, Multi-Component</u>		
	i) <u>Air Dried</u>	<u>0.340</u>	<u>0.55</u>
		<u>(2.8)</u>	<u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
C)	<u>Extreme High Gloss</u>		
	i) <u>Air Dried</u>	<u>0.340</u>	<u>0.55</u>
		<u>(2.8)</u>	<u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
D)	<u>Extreme Performance</u>		
	i) <u>Air Dried</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
E)	<u>Heat Resistant</u>		
	i) <u>Air Dried</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>
F)	<u>Metallic</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
G)	<u>Pretreatment Coatings</u>	<u>0.420</u>	<u>0.80</u>
		<u>(3.5)</u>	<u>(6.7)</u>
H)	<u>Solar Absorbent</u>		
	i) <u>Air Dried</u>	<u>0.420</u>	<u>0.80</u>

		<u>(3.5)</u>	<u>(6.7)</u>
ii)	<u>Baked</u>	<u>0.360</u>	<u>0.61</u>
		<u>(3.0)</u>	<u>(5.1)</u>

~~3) (Note: On and after May 1, 2011, these the limitations set forth in this subsection (g) 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.)~~

~~3) On and after May 1, 2011, an owner or operator of a coating line subject to the limitations in this subsection (g) shall 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 (g), 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 (g), 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; or~~

~~F) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if such method is approved in writing by the Agency.~~

h) Large Appliance Coating

1)	<u>Prior to May 1, 2011:</u>	<u>kg/l</u>	<u>lb/gal</u>
	A) <u>Air Dried</u>	<u>0.34</u>	<u>(2.8)</u>
	B) <u>Baked</u>	<u>0.28</u>	<u>(2.3)</u>
2)	<u>On and after May 1, 2011:</u>	<u>kg/l</u>	<u>kg/l (lb/gal)</u>
		<u>(lb/gal)</u>	<u>solids applied</u>
	A) <u>General, One Component</u>	<u>0.275</u>	<u>0.40</u>

		<u>(2.3)</u>	<u>(3.3)</u>
B)	<u>General, Multi-Component</u>		
	i) <u>Air Dried</u>	<u>0.340</u> <u>(2.8)</u>	<u>0.55</u> <u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.275</u> <u>(2.3)</u>	<u>0.40</u> <u>(3.3)</u>
C)	<u>Extreme High Gloss</u>		
	i) <u>Air Dried</u>	<u>0.340</u> <u>(2.8)</u>	<u>0.55</u> <u>(4.5)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
D)	<u>Extreme Performance</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
E)	<u>Heat Resistant</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
F)	<u>Metallic</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
G)	<u>Pretreatment Coatings</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
H)	<u>Solar Absorbent</u>		
	i) <u>Air Dried</u>	<u>0.420</u> <u>(3.5)</u>	<u>0.80</u> <u>(6.7)</u>
	ii) <u>Baked</u>	<u>0.360</u> <u>(3.0)</u>	<u>0.61</u> <u>(5.1)</u>
4)	<u>Air dried</u>	<u>0.34</u>	

- | | | | |
|----|-------|-------|--------|
| | | 0.34* | (2.8)* |
| 2) | Baked | 0.34 | (2.8) |
| | | 0.28* | (2.3)* |
- 3) ~~(Note: These~~The limitations set forth in this subsection (h) 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 l (1 quart) in any one rolling eight-hour period. On and after May 1, 2011, these limitations shall also 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.
- ~~3) On and after May 1, 2011, an owner or operator of a coating line subject to the limitations in this subsection (h) shall 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 (h), 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) Brush coating;~~
- ~~F) Dip coating, including electrodeposition. For purposes of this subsection (h), 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; or~~
- ~~G) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if such method is approved in writing by the Agency.~~
- | | | | |
|----|--|-------|--------|
| i) | Magnet Wire Coating | kg/l | lb/gal |
| | | 0.20 | (1.7) |
| | | 0.20* | (1.7)* |
| j) | Miscellaneous Metal Parts and Products Coating | | |

1)	Clear coating	0.52 0.52*	(4.3) (4.3)*
2)	Extreme performance coating		
	A) Air dried	0.42 0.42*	(3.5) (3.5)*
	B) Baked	0.42 0.40*	(3.5) (3.3)*
3)	Steel pail and drum interior coating	0.52 0.52*	(4.3) (4.3)*
4)	All other coatings		
	A) Air Dried	0.42 0.40*	(3.5) (3.3)*
	B) Baked	0.36 0.34*	(3.0) (2.8)*
5)	Metallic Coating		
	A) Air Dried	0.42 0.42*	(3.5) (3.5)*
	B) Baked	0.36 0.36	(3.0) (3.0)*
6)	For purposes of subsection 219.204(j)(5) of this Section, "metallic coating" means a coating which contains more than ¼ lb/gal of metal particles, as applied.		
k)	Heavy Off-Highway Vehicle Products Coating	kg/l	lb/gal
	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) above.		

1) 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)

(Note: Prior to March 15, 1998, an owner or operator of a wood furniture coating operation subject to this Section 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 (1)(2)(A) through (E), below:

		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 Section 219.204(l)(2)(A) or (B) of this Subpart, as calculated using Section 219.216 of this Subpart; or
- E) Use a combination of the methods specified in Section 219.204(l)(2)(A) through (D) of this Subpart.
- 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) 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 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) 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, 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 shall always be

greater than or equal to the viscosity of the initial coating in the reservoir. The owner or operator 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)	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)*
n)		Plastic Parts Coating: Business Machine	kg/l	lb/gal
	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)*

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.205 Daily-Weighted Average Limitations

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 shall operate the subject coating line unless the owner or operator has demonstrated compliance with subsection (a), (b), (c), (d), (e), (f), (g), ~~or~~ (h), or (i) 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) No owner or operator of a coating line subject to only one of the limitations from among Section 219.204(a)(1), (a)(4), ~~(e)~~, (d), (e), (f), ~~or (i)~~, or, prior to May 1, 2011, (c) 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) No owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 219.204(j) 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 which~~ 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line ~~that which~~ 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 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) No owner or operator of a can coating line subject to the limitations of Section 219.204(b) 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, shall be determined according to subsection (c)(2) of this Section. Actual daily emissions shall never exceed the alternative daily emission limitation and 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 which 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 which are specifically exempted from the definition of VOM).

- 2) The alternative daily emission limitation (A_d) 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 which 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 0.882kg 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 which 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 which are specifically exempted from the definition of VOM).

- d) No owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 219.204(k) 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~~which 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line ~~that~~which 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 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) No owner or operator of a wood furniture coating line subject to the limitations of Section 219.204(l)(1) or (l)(3) 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~~which 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line ~~that~~which 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 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) No owner or operator of a plastic parts coating line subject to the limitations of Section 219.204(m) or (n) 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~~ which 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line ~~that~~ which 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 shall 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) must be satisfied.
- g) No owner or operator of a metal furniture coating line subject to the limitations of Section 219.204(g) of 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~~ which 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or
 - 2) For each coating line ~~that~~ which 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 shall 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) must be satisfied.
- h) No owner or operator of a large appliance coating line subject to the limitations of Section 219.204(h) of 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~~ which 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 shall not exceed the coating VOM content limit corresponding to the category of coating used, or

- 2) For each coating line ~~that~~ which 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 shall 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) must be satisfied.
- i) On and after May 1, 2011, no owner or operator of a paper coating line subject to the limitations of Section 219.204(c) of 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 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(c) 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), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.207 Alternative Emission Limitations

- a) Any owner or operator of a coating line subject to Section 219.204 of this Subpart 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)~~, or (k) 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), or (k) 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) Calculate "S" according to the equation in Section 219.206 of this Subpart;
 - 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 above in subsection (b)(2)(B) of this Section.
- c) No owner or operator of a coating line subject to only one of the emission limitations from among Section 219.204(a)(1), (a)(4), ~~(e)~~, (d), (e), (f), ~~or (i)~~, or, prior to May 1, 2011, (c) of this Subpart and equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met. No owner or operator of a coating line subject to Section 219.204(a)(2) or (a)(3) of this Part and equipped with a capture system and control device 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) of this Part.

- d) No owner or operator of a miscellaneous metal parts and products coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- e) No owner or operator of a heavy off-highway vehicle products coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- f) No owner or operator of a wood furniture coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device 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) No owner or operator of a can coating line and equipped with a capture system and control device 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, shall be determined according to Section 219.205(c)(2) of this Subpart. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation:

$$E_d = \sum_{i=1}^n V_i C_i (1 - F_i)$$

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 which 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 which 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) No owner or operator of a plastic parts coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device 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, no~~No~~ owner or operator of a metal furniture coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device 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, no~~No~~ owner or operator of a large appliance coating line ~~that which~~ 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 which~~ is equipped with a capture system and control device 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, 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 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.

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.210 Compliance Schedule

Every owner or operator of a coating line (of a type included within Section 219.204 of this Subpart) shall comply with the requirements of Section 219.204, 219.205, 219.207 or 219.208 and Section 219.211 or Sections 219.212 and 219.213 of this Subpart in accordance with the appropriate compliance schedule as specified in subsection (a), (b), (c), (d), (e), ~~or (f)~~, or (g) of this Section below:

- a) No owner or operator of a coating line ~~that which~~ is exempt from the limitations of Section 219.204 of this Subpart because of the criteria in Section 219.208(a) or (b) of this Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Section 219.211(b) of this Subpart.
- b) No owner or operator of a coating line complying by means of Section 219.204 of this Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 219.204 and 219.211(c) of this Subpart.
- c) No owner or operator of a coating line complying by means of Section 219.205 of this Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 219.205 and 219.211(d) of this Subpart.
- d) No owner or operator of a coating line complying by means of Section 219.207 of this Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and

continues to comply with, Sections 219.207 and 219.211(e) of this Subpart.

- e) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 219.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 219.204, 219.205 or 219.207 of this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with, respectively, the applicable requirements in Section 219.204, or the alternative control options in Sections 219.205 or 219.207 and the requirements of Section 219.211.
- f) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 219.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 219.212 of this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with the requirements of Sections 219.212 and 219.213 of this Subpart.
- g) No owner or operator of a coating line subject to the emission limitations in Section 219.204(c)(2), 219.204(g)(2), or 219.204(h)(2) of this Subpart shall operate that coating line on or after a date consistent with Section 219.106(c) of this Part, unless the owner or operator has complied with, and continues to comply with, Section 219.204(c)(2), 219.204(g)(2), or 219.204(h)(2), as applicable, or the alternative control options in Section 219.205 or 219.207, and all applicable requirements in Sections 219.211 and 219.218 of this Subpart.

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.211 Recordkeeping and Reporting

- a) The VOM content of each coating and the efficiency of each capture system and control device 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 which~~ is exempted from the limitations of Section 219.204 of this Subpart because of Section 219.208(a) or (b) 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) 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. Such certification 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 which~~ 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 shall be used to calculate total VOM emissions:

$$T_e = \sum_{j=1}^m \sum_{i=1}^n (A_i B_i)_j$$

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 which 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);
- B_i = 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 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 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) of this Section shall certify to the Agency that the source is exempt under the provisions of Section 219.208(b) of this Subpart. Such certification 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 which 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 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 which 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) 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) 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 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)(2) and (a)(3) of this Subpart and complying by means of Section 219.204 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 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 Such~~ certification 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 which are specifically exempted from the definition of VOM) as applied each day on each coating line; ~~and~~
 - 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; and

- E) For coating lines subject to the limitations of Section 219.204(g)(2) or 219.204(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.
- 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 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 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;
- 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; ~~and~~
- 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; and
- 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.

- 3) On and after a date consistent with Section 219.106 of this Part, the owner or operator of a subject coating line shall notify the Agency in the following instances:
 - A) Any record showing violation of Section 219.204 of this Subpart shall be reported by sending a copy of 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 shall comply with all requirements of subsection (d)(1) or (e)(1) below, respectively. 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 shall comply with all requirements of subsection (d) or (e) of this Section, respectively.
- 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 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 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~~Such~~ certification 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(1)(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(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 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.
 - ~~GE)~~ 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.
 - ~~HF)~~ The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
 - ~~IG)~~ 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 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 which 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 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.

F) 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 shall notify the Agency in the following instances:

A) Any record showing violation of Section 219.205 of this Subpart shall be reported by sending a copy of 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 shall comply with all requirements of subsection (c)(1) or (e)(1) of this Section, respectively. 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 shall comply with all requirements of subsection (c) or (e) of this Section, respectively.

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) 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 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 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 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 shall notify the Agency in the following instances:
 - A) Any record showing violation of Section 219.207 of this Subpart shall be reported by sending a copy of 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 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 Part from Section 219.207 to Section 219.204 or Section 219.205 of this Subpart, the owner or operator 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 subject to the limitations of Section 219.204(a)(2) or (a)(3) 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 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 Such~~ certification shall include:

- A) The name and identification number of each coating operation which will comply by means of Section 219.204(a)(2) and (a)(3) 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~~below~~.
 - H) An example format for presenting the records required in subsection (f)(2) of this Section~~below~~.
- 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 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 calculate the daily-weighted average VOM emissions from the coating operations in kg (lbs) per 1 (gal) of coating solids deposited in accordance with the proposal submitted, and approved pursuant to Section 219.204(a)(2) or (a)(3) 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~~ ~~device(s) is~~ 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 shall determine and record the daily VOM emissions in kg (lbs) per 1 (gal) of coating solids deposited in accordance with the proposal submitted and approved pursuant to Section 219.204(a)(2) or (a)(3) 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 shall notify the Agency in the following instances:
 - A) Any record showing a violation of Section 219.204(a)(2) or (a)(3) of this Subpart shall be reported by sending a copy of such record to the Agency within 15 days from the end of the month in which the violation occurred.
 - B) The owner or operator shall notify the Agency of any change to the operation at least 30 days before the change is effected. The Agency shall determine whether or not compliance testing is required. If the Agency determines that compliance testing is required, then the owner or operator shall submit a testing proposal to the Agency within 30 days and test within 30 days of 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 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.

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.212 Cross-Line Averaging to Establish Compliance for Coating Lines

- a) On and after March 15, 1996, any owner or operator of a coating line subject to the limitations set forth in Section 219.204 of this Subpart, except coating lines subject to the limitations in Section 219.204(c)(2), (g)(2), or (h)(2) of this Subpart, and with coating lines in operation prior to January 1, 1991 ("pre-existing coating lines"), may, for pre-existing coating lines only, elect to comply with the requirements of this Section, rather than complying with the applicable emission limitations set forth in Section 219.204, if an operational change of the type described below has been made after January 1, 1991, to one or more pre-existing coating lines at the source. An operational change occurs when a pre-existing coating line is replaced with a line using lower VOM coating for the same purpose as the replaced line ("replacement line"). A source electing to rely on this Section to demonstrate compliance with the requirements of this Subpart shall operate pursuant to federally enforceable permit conditions approved by the Agency and USEPA.
- b) An owner or operator of pre-existing coating lines subject to a VOM content limitation in Section 219.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart must establish, by use of the equations in subsection (d) of this Section, that the calculated actual daily VOM emissions from all participating coating lines, as defined below, are less than the calculated daily allowable VOM emissions from the same group of coating lines. For any pre-existing coating line to be aggregated for the purposes of Section 219.212, 219.213, or 219.214 of this Subpart ("participating coating lines"), the source must establish that:

- 1) All coatings applied on the participating coating line shall, at all times, have a VOM content less than or equal to the applicable VOM content limitation for such coating listed in Appendix H of this Part; and
 - 2) On the date the source elects to rely on this Section to demonstrate compliance with this Subpart, all coatings applied on the participating coating line are not already in compliance with the VOM content limitation for such coating effective on or after March 15, 1996; or the participating coating line is a replacement line, as defined in subsection (a) of this Section with an operational change occurring on or after January 1, 1991.
- c) Notwithstanding subsection (a) of this Section, any owner or operator of a coating line subject to the limitations set forth in Section 219.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart, may also include as a participating coating line, until December 31, 1999, only, any replacement line that satisfies all of the following conditions:
- 1) The replacement line is operated as a powder coating line;
 - 2) The replacement line was added after July 1, 1988; and
 - 3) The owner or operator also includes as a participating coating line one or more coating lines that satisfy the criteria of a replacement line, as described in subsection (a) of this Section.
- d) To demonstrate compliance with this Section, a source shall establish the following:
- 1) An alternative daily emission limitation shall be determined for all participating coating lines at the source according to subsection (d)(2) of this Section. All participating coating lines shall be factored in each day to demonstrate compliance. Provided compliance is established pursuant to the requirements in this subsection, nothing in this Section requires daily operation of each participating line. Actual daily emissions from all participating coating lines (E_d) shall never exceed the alternative daily emission limitation (A_d) and shall be calculated by use of the following equation:

$$E_d = \sum_{i=1}^n V_i C_i$$

where:

E_d = Actual daily VOM emissions from participating coating lines in units of kg/day (lbs/day);

i = Subscript denoting a specific coating applied;

n = Total number of coatings applied by all participating 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 which are specifically exempted from the definition of VOM); and

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 which are specifically exempted from the definition of VOM).

- 2) The alternative daily emission limitation (A_d) shall be determined for all participating coating lines at the source on a daily basis as follows:

$$A_d = A_l + A_p$$

where A_l and A_p are defined in subsections (d)(2)(A) and (d)(2)(B) of this subsection.

- A) The portion of the alternative daily emissions limitation for coating operations at a source using non-powder coating (A_l) shall be determined for all such participating non-powder coating lines on a daily basis as follows:

$$A_l = \sum_{i=1}^n V_i L_i \frac{(D_i - C_i)}{(D_i - L_i)}$$

where:

A_l = 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 coatings applied by all participating coating lines at the source;

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 which are specifically exempted from the definition of VOM);

D_i = The density of VOM in each coating applied. For the purposes of calculating A_i , the density is 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

V_i = Volume of each coating applied for the day in units of l (gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM); and

L_i = The VOM emission limitation for each coating applied, as specified in Section 219.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

B) The portion of the alternative daily emission limitation for coating operations at a source using powdered coating (A_p) shall be determined for all such participating powder coating lines at the source on a daily basis as follows:

$$A_p = \sum_{h=1}^m \sum_{j=1}^n \frac{V_j L_j D_j K_h}{(D_j - L_j)}$$

where:

A_p = The VOM emissions allowed for the day in units of kg/day (lbs/day);

h = Subscript denoting a specific powder coating line;

j = Subscript denoting a specific powder coating applied;

m = Total number of participating powder coating lines;

n = Total number of powder coatings applied in the participating coating lines;

D_j = The assumed density of VOM in liquid coating, 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

V_j = Volume of each powder coating consumed for the day in units of l (gal) of coating;

L_j = The VOM emission limitation for each coating applied, as specified in Section 219.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM); and

K = A constant for each individual coating line representing the ratio of the volume of coating solids consumed on the liquid coating system which has been replaced to the volume of powder coating consumed on the replacement line to accomplish the same coating job. This value shall be determined by the source based on tests conducted and records maintained pursuant to the requirements of Section 219.213 of this Subpart demonstrating the amount of coating solids consumed as both liquid and powder. Tests methods and recordkeeping requirements shall be approved by the Agency and USEPA and contained in the source's operating permit as federally enforceable permit conditions, subject to the following restrictions:

- i) K cannot exceed 0.9 for non-recycled powder coating systems; or
- ii) K cannot exceed 2.0 for recycled powder coating systems.

(Source: Amended at 34 Ill. Reg. _____, effective _____)

Section 219.218 Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings

- a) On and after May 1, 2011, every owner or operator of a source subject to the requirements of Section 219.204(c) of this Subpart shall:
 - 1) Store all VOM-containing cleaning materials in closed containers;
 - 2) Ensure that mixing and storage containers used for VOM-containing materials are kept closed at all times except when depositing or removing those materials;
 - 3) Minimize spills of VOM-containing cleaning materials;

- 4) Convey VOM-containing cleaning materials from one location to another in closed containers or pipes; and
 - 5) Minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment.
- b) On and after May 1, 2011, every owner or operator of a source subject to the requirements of Section 219.204(g) or 219.204(h) 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, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing such those materials;
 - 3) Minimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials, and clean up spills immediately;
 - 4) Convey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes; ~~and~~
 - 5) Minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment; ~~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), 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), 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, if subject to the requirements of Section ~~219.204(h)~~219.204(h); or
- G) Another coating application method capable of achieving a transfer efficiency equal to or better than that achieved by HVLP spraying, if such method is approved in writing by the Agency.

(Source: Added at 34 Ill. Reg. _____, effective _____)

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on March 18, 2010, by a vote of 5-0.



John T. Therriault, Assistant Clerk
Illinois Pollution Control Board