

ILLINOIS POLLUTION CONTROL BOARD

January 7, 2010

IN THE MATTER OF: )  
)  
REASONABLY AVAILABLE CONTROL ) R10-08  
TECHNOLOGY (RACT) FOR VOLATILE ) (Rulemaking - Air)  
ORGANIC MATERIAL EMISSIONS FROM )  
GROUP II CONSUMER & COMMERCIAL )  
PRODUCTS: PROPOSED AMENDMENTS )  
TO 35 ILL. ADM. CODE 211, 218, and 219 )

Proposed Rule. First Notice.

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

On July 9, 2009, the Illinois Environmental Protection Agency (Agency or Illinois EPA) filed a proposal under the general rulemaking provisions of Sections 27, 28, and 28.2 of the Environmental Protection Act (Act). *See* 415 ILCS 5/27, 28, 28.2 (2008). In an order dated October 15, 2009, the Board granted the Agency's motion to amend the proposal. On December 7, 2009, the Agency filed a second motion to amend the proposal, which the Board addresses below under the heading "Preliminary Matter." Generally, the Agency has proposed air pollution regulations to control emissions of volatile organic material (VOM) for Group II Consumer & Commercial Products in ozone nonattainment areas classified as moderate and above. Group II products include industrial cleaning solvents, flat wood paneling coatings, flexible packaging printing materials, lithographic printing materials, and letterpress printing materials.

The first-notice amendments described below are intended primarily to reduce VOM emissions from the Group II product categories in order to meet Illinois' obligations under the Clean Air Act (CAA). Publication of these proposed amendments in the *Illinois Register* will begin a 45-day public comment period.

In this opinion, the Board first reviews the procedural history of this rulemaking before addressing a single preliminary matter and then briefly reviewing federal regulation of VOM emissions. Next, the Board summarizes the Agency's amended proposal on a section-by-section basis. The Board then summarizes single post-hearing comment it received before addressing potentially affected sources and projected emission reductions and technical and economic considerations. The Board then concludes to adopt the amended proposal for first notice under the Illinois Administrative Procedure Act (5 ILCS 100/1-1 *et seq.* (2008)). The order following the opinion then sets forth the proposed amendments for first-notice publication in the *Illinois Register*.

**PROCEDURAL HISTORY**

On July 9, 2009, the Agency filed a rulemaking proposal to amend Parts 211, 218, and 219 of the Board's air pollution regulations (Prop. 211, Prop. 218, and Prop. 219, respectively). The Agency filed the proposal under the general rulemaking provisions of Sections 27 and 28 of the Act. *See* 415 ILCS 5/27, 28 (2008). 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 and a motion for expedited review. In an order dated August 6, 2009, the Board accepted the Agency's proposal for hearing, granted the Agency's motion for waiver of copy requirements, and denied the Agency's motion for expedited review.

In a letter dated August 6, 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 August 12, 2009, the hearing officer scheduled a first hearing to begin on October 27, 2009, in Edwardsville and a second hearing to begin December 8, 2009, in Chicago. The order directed participants wishing to pre-file testimony for the first hearing to do so no later than September 15, 2009. The order also directed participants to pre-file questions based on pre-filed testimony no later than September 29, 2008. Finally, the order directed participants whose pre-filed testimony elicited pre-filed questions to pre-file written answers to those questions no later than October 13, 2009. The order also provided that pre-filing deadlines for the second hearing would be set at a later date.

On September 14, 2009, the Agency pre-filed the testimony of Mr. David E. Bloomberg and a motion to amend its rulemaking proposal (Mot. Amend 1). No other participant pre-filed testimony for the first hearing, and no participant pre-filed questions based on Mr. Bloomberg's pre-filed testimony. No participant filed a response to the Agency's motion to amend its rulemaking proposal. In an order dated October 15, 2009, the Board granted the Agency's motion to amend.

The first hearing took place as scheduled on October 27, 2009, and the Board received the transcript of the first hearing (Tr.1) on October 29, 2009. During the first hearing, the hearing officer admitted into the record one exhibit, the pre-filed testimony of Mr. Bloomberg (Bloomberg Test.).

In an order dated October 28, 2009, the hearing officer directed participants wishing to pre-file testimony for the second hearing to do so no later than November 17, 2009. *See* Tr.1 at 25. The order also directed participants to pre-file questions based upon pre-filed testimony no later than December 3, 2009. *Id.* No participant pre-filed testimony or questions for the second hearing.

On December 7, 2009, the Agency filed a second motion to amend its rulemaking proposal (Mot. Amend 2). That motion is addressed below under "Preliminary Matter."

The second hearing took place as scheduled on December 8, 2009, and the Board received the transcript of the second hearing (Tr.2) on December 11, 2009. No participant

offered testimony at the second hearing. *See* Tr.2 at 7. Regarding the Board's request that DCEO conduct an economic impact study of the Agency's proposal, no participant wished to offer testimony or comment. *See* Tr.2 at 8. In an order dated December 9, 2009, the hearing officer set a deadline of December 28, 2009, to filing of post-hearing comments. *See* 35 Ill. Adm. Code 102.108(b)

On December 28, 2009, the Board received a post-hearing comment from Mr. Bruce Meerman, Senior Environmental Consultant, Mostardi Platt Environmental (PC 1).

### **Filing Public Comments**

First-notice publication of these proposed rules in the *Illinois Register* will start a period of at least 45 days during which any person may file a public comment with the Board, regardless of whether the person has already filed a public comment in this proceeding. *See* 5 ILCS 100/5-40(b) (2008) (Illinois Administrative Procedure Act).

Public comments must be filed with the Clerk of the Board at the following address:

Pollution Control Board  
 John T. Therriault, Assistant Clerk  
 James R. Thompson Center  
 100 W. Randolph Street, Suite 11-500  
 Chicago, IL 60601

The docket number for this rulemaking, R10-8, should be indicated on any public comment in this proceeding.

Please note that all filings with the Clerk of the Board must be served on the hearing officer and on those persons on the Service List for this rulemaking. Before filing any document with the Clerk, please check with the the Clerk's Office to verify the current version of the Service List.

### **PRELIMINARY MATTER**

On December 7, 2009, the Agency filed a second motion to amend its rulemaking proposal. The motion seeks a single amendment to Sections 218.187 and 219.187 concerning the VOM content of as-used cleaning solutions. Mot. Amend 2 at 1-2.

Section 100.500(d) of the Board's procedural rules provides in pertinent part that, "[w]ithin 14 days after service of a motion, a party may file a response to the motion. If no response is filed, the party will be deemed to have waived objection to the granting of the motion, but the waiver of objection does not bind the Board or the hearing officer in its disposition of the motion." 35 Ill. Adm. Code 101.500(d). No participant has filed a response to the Agency's second motion to amend. Having reviewed the Agency's second motion to amend, the Board grants the motion and amends the Agency's rulemaking proposal as requested. The

Board addresses the substance of the amendment in addressing Sections 218.187 and 219.187 in its summary of the Agency's amended proposal below. *See infra* at 15.

### **BACKGROUND OF FEDERAL VOM REGULATION**

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

The Agency characterizes VOM<sup>1</sup> as “a primary precursor to the formation of ground-level ozone,” which is formed when VOM reacts with oxides of nitrogen in the atmosphere in the presence of sunlight. SR at 2-3, citing 71 Fed. Reg. 58746 (Oct. 5, 2006); *see* TSD at 1-2. In 1997, the United States Environmental Protection Agency (USEPA) revised NAAQS for ozone by instituting an 8-hour standard. *Id.* at 3, citing 62 Fed. Reg. 38856 (July 18, 1997). Two Illinois areas, Chicago and St. Louis/Metro East, have been designated as moderate nonattainment areas for the 8-hour ozone standard.<sup>2</sup> SR at 3.

These nonattainment designations trigger CAA requirements “for adopting regulations that reduce emissions sufficiently to demonstrate attainment of the standard.” *Id.* at 4, citing 42 U.S.C. § 7502(c)(1); *see* Bloomberg Test at 3. Specifically, the Agency claims that the CAA requires Illinois “to submit VOC regulations constituting RACT [reasonably available control technology] for Group II Consumer and Commercial Product Categories in ozone nonattainment areas classified as moderate and above.” SR at 5, citing 42 U.S.C. §§ 7502(c)(1), 7511a(b)(2); *see* TSD at 1. The Agency defines RACT “as the lowest emission limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility.” SR at 5, citing 44 Fed. Reg. 53762 (Sept. 17, 1979); *see* TSD at 1, Bloomberg Test. at 3. The Agency states that “Illinois was required to submit its SIP revisions by October 5, 2007.” SR at 5.

The Agency states that the CAA requires that USEPA “conduct a study of the emissions of VOC 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 VOC from those products.” SR at 2, citing 71 Fed. Reg. 58746 (Oct. 5, 2006). The Agency further states 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

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

<sup>2</sup> 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 1. 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 1.

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).

The Agency claims that “[t]he CAA requires that USEPA then either regulate VOC emissions from such categories or issue a CTG [control technology guideline] in lieu of a national regulation if the Administrator determines that such guidance will be substantially as effective as regulations in reducing emissions of VOC which contribute to ozone levels in ozone nonattainment areas.” SR at 4, citing 42 U.S.C. § 7511b(e)(3)(C). The Agency states that “CTGs provide states with recommendations regarding what types of controls could constitute RACT for VOCs for the applicable source categories.” SR at 4, citing 71 Fed. Reg. 58745, 58747 (Oct. 5, 2006). The Agency claims 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 71 Fed. Reg. 58745, 58747 (Oct. 5, 2006).

The Agency states that, instead of national regulations controlling VOC emissions, “USEPA issued final CTGs for Group II Consumer and Commercial Product Categories” on October 5, 2006. SR at 4. The Agency further states that, in developing the CTG’s, “USEPA evaluated the sources of VOM emissions from the applicable industries, the available control possibilities to address the associated emissions, and the cost of such control measures.” TSD at 1. The Agency indicates that “USEPA required that states submit SIP revisions in response to the CTGs within one year.” *Id.*, citing 71 Fed. Reg. 58745-53 (Oct. 5, 2006). Specifically, the Agency states that Illinois must revise its SIP to include RACT for sources of VOM emissions covered by a USEPA CTG issued between November 15, 1990 and the date of attainment. SR at 2, citing 42 U.S.C. § 7511a(b)(2); *see* TSD at 1, *Bloomberg Test.* at 3.

The Agency states that “Illinois is required to submit these SIP revisions before the USEPA can redesignate the Chicago and Metro East nonattainment area as attaining the 1997 ozone NAAQS, regardless of whether the VOC reductions obtained by the SIP revisions are actually necessary to achieve attainment of the NAAQS.” SR at 6, citing *Wall v. USEPA*, 265 F.2d 426, 433, 440-42 (6th Cir. 2001); 42 U.S.C. § 7407(d)(3)(E). The Agency notes 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 notes that, on March 19, 2009, it submitted an attainment demonstration for the Chicago nonattainment area. *Id.* The Agency argues 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 II CTGs and the USEPA approves such revisions.” *Id.* The Agency claims that its proposal seeks “to implement the recommendations contained in the CTGs to the extent that such recommendations are consistent with, and impose stricter requirements than, existing regulations.” *Id.*

The Agency also notes that USEPA recently strengthened the eight-hour ozone standard. SR at 7, citing 73 Fed. Reg. 16436 (Mar. 27, 2008); *see* TSD at 1. The Agency considers it “likely” that areas designated as nonattainment for the current standards will be designated nonattainment for the revised standard. SR at 7. The Agency argues 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 nonattainment areas resulting from these proposed amendments will likely help Illinois achieve the revised NAAQS.” *Id.*; *see* TSD at 1.

## **SUMMARY OF AGENCY’S AMENDED PROPOSAL**

### **Part 211**

The Agency proposes to amend four definitions in and add 23 new definitions to the existing Part 211, Definitions and General Provisions. SR at 11-15; *see* Prop. 211; *see generally* 35 Ill. Adm. Code 211. The Board summarizes each of the proposed amendments and additions separately in the subsections below.

#### **Section 211.1000: Class II Finish**

The Agency proposes to add a definition of “Class II Finish,” stating that it is necessitated by proposed amendments to Subpart F of Parts 218 and 219. SR at 11-12; *see* Prop. 218 at 17-57, Prop. 219 at 17-55. The Agency’s proposed definition provides in its entirety that “‘Class II Finish’ means a finish that meets the specifications of Voluntary Product Standard PS-59-73, as approved by the American National Standards Institute.” Prop. 211 at 13.

#### **Section 211.1745: Digital Printing**

The Agency proposes to add a definition of “Digital Printing,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 12; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Digital Printing’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the transfer of electronic files directly from a computer to an electronically driven output device that prints the image directly on the selected media (substrate). Printing using home and office equipment is excluded from this definition.” Prop. 211 at 13.

#### **Section 211.1878: Electrical Apparatus Component**

The Agency proposes to add a definition of “Electrical Apparatus Component,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 12; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Electrical Apparatus Component’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an internal component such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generates or transmits electrical energy including, but not limited to, alternators, generators, transformers, electric motors, cables, and circuit breakers, except for the actual cabinet in which the components are housed. Electrical components of graphic arts application equipment and hot-line tools are also included in this category. Prop. 211 at 13-14.

### **Section 211.1885: Electronic Component**

Section 211.1885 of the Board’s air pollution regulations now provides that “‘Electronic Component’ means, for the purposes of 35 Ill. Adm. Code 218.182(f) and 219.182(f), all portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters.” 35 Ill. Adm. Code 211.1885. The Agency proposes to amend this definition by extending its application to Sections 218.187 and 219.187 and by adding an exception for cabinets housing components. SR at 12. As proposed by the Agency, the revised definition would provide that

‘Electronic Component’ means, for the purposes of 35 Ill. Adm. Code 218.182(f), 219.182(f), 218.187, and 219.187, all portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters, except for the actual cabinet in which the components are housed. *See Prop. 211 at 14.*

The Agency states that these revisions are necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 12; *see Prop. 218 at 4-17, Prop. 219 at 4-17.*

### **Section 211.2355: Flat Wood Paneling**

The Agency proposes to add a definition of “Flat Wood Paneling,” stating that it is necessitated by proposed amendments to Subpart F of Parts 218 and 219. SR at 12; *see Prop. 218 at 17-57, Prop. 219 at 17-55.* The Agency’s proposed definition provides in its entirety that “‘Flat Wood Paneling’ means natural finish hardwood plywood panels, hardwood panels with Class II finishes, tileboard, exterior siding, and printed interior panels made of hardwood, plywood, or thin particleboard.” Prop. 211 at 14.

### **Section 211.2356: Flat Wood Paneling Coating Line**

The Agency proposes to add a definition of “Flat Wood Paneling Coating Line,” stating that it is necessitated by proposed amendments to Subpart F of Parts 218 and 219. SR at 12; *see Prop. 218 at 17-57, Prop. 219 at 17-55.* The Agency’s proposed definition provides in its entirety that “‘Flat Wood Paneling Coating Line’ means a coating line in which any protective, decorative, or functional coating is applied to flat wood paneling.” Prop. 211 at 14.

### **Section 211.2368: Flexible Packaging**

The Agency proposes to add a definition of “Flexible Packaging,” stating that it is necessitated by proposed amendments to Subpart H of Parts 218 and 219. SR at 12; *see Prop. 218 at 57-129, Prop. 219 at 55-130.* The Agency’s proposed definition provides in its entirety that

‘Flexible Packaging’ means any package or part of a package, the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials. Shrink-wrap labels or wrappers (but not self-adhesive labels) printed on or in-line with a flexible packaging printing press are also considered to be flexible packaging. Flexible packaging does not include folding cartons, gift wraps, hot stamp foils, wall coverings, vinyl products, decorative laminates, floor coverings, or tissue products. Prop. 211 at 14.

### **Section 211.2615: General Work Surface**

The Agency proposes to add a definition of “General Work Surface,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 12-13; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘General Work Surface’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an area of a medical device or pharmaceutical manufacturing facility where solvent cleaning is performed on work surfaces, but for which cleaning specifications are not required to be maintained in accordance with criteria and procedures established to meet requirements of the United States Food and Drug Administration and/or other applicable regulatory agencies with authority over manufacturing operations for medical devices and/or pharmaceuticals. General work surfaces shall not include items defined under ‘Janitorial Cleaning.’ Prop. 211 at 14-15.

### **Section 211.2830: Heatset**

Section 211.2830 of the Board’s air pollution regulations now provides that “‘Heatset’ means a class of lithography which requires a heated dryer to solidify the printing inks.” 35 Ill. Adm. Code 211.2830. The Agency proposed to amend the definition “to include letterpress printing lines.” SR at 13. The Agency states that this revisions is necessitated by proposed amendments to Subpart H of Parts 218 and 219. SR at 13; *see* Prop. 218 at 57-129, Prop. 219 at 55-130. As proposed by the Agency, the revised definition would provide in its entirety that “‘Heatset’ means a class of lithography or letterpress which requires a heated dryer to solidify the printing inks.” Prop. 211 at 15.

### **Section 211.2855: Heatset Web Letterpress Printing Line**

The Agency proposes to add a definition of “Heatset Web Letterpress Printing Line,” stating that it is necessitated by proposed amendments to Subpart H of Parts 218 and 219. SR at 13; *see* Prop. 218 at 57-129, Prop. 219 at 55-130. The Agency’s proposed definition provides in its entirety that “‘Heatset Web Letterpress Printing Line’ means a letterpress printing line in which a continuous roll of substrate is fed through the printing press and an oven is used to solidify the printing inks.” Prop. 211 at 15.



### **Section 211.2965: High Precision Optic**

The Agency proposes to add a definition of “High Precision Optic,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 13; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘High Precision Optic’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.” Prop. 211 at 15.

### **Section 211.3215: Janitorial Cleaning**

The Agency proposes to add a definition of “Janitorial Cleaning,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 13; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Janitorial Cleaning’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the cleaning of building or facility components, including, but not limited to, floors, ceilings, walls, windows, doors, stairs, bathrooms, furnishings, and exterior surfaces of office equipment, and excludes the cleaning of work areas where manufacturing or repair activity is performed.” Prop. 211 at 15.

### **Section 211.3305: Letterpress Printing Line**

The Agency proposes to add a definition of “Letterpress Printing Line,” stating that it is necessitated by proposed amendments to Subpart H of Parts 218 and 219. SR at 13; *see* Prop. 218 at 57-129, Prop. 219 at 55-130. The Agency’s proposed definition provides in its entirety that “‘Letterpress Printing Line’ means a web or sheetfed printing line that does not constitute a flexographic printing line, in which the image area is raised relative to the non-image area and the ink is transferred to the substrate directly from the image surface.” Prop. 211 at 16.

### **Section 211.3555: Maintenance Cleaning**

The Agency proposes to add a definition of “Maintenance Cleaning,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 13; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Maintenance Cleaning’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning operation or activity carried out to ensure that general work areas where manufacturing or repair activity is performed remains clean, and to clean tools, machinery, molds, forms, jigs, and equipment. This definition does not include the cleaning of coatings, adhesives, or ink application equipment.’ Prop. 211 at 16.

### **Section 211.3705: Medical Device**

The Agency proposes to add a definition of “Medical Device,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 13; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Medical Device’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory, that meets one or more of the following conditions

- (a) it is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease;
- (b) it is intended to affect the structure or any function of the body; or
- (c) it is defined in the National Formulary or the United States Pharmacopeia, or any supplement to them. Prop. 211 at 16.

### **Section 211.3707: Medical Device and Pharmaceutical Manufacturing**

The Agency proposes to add a definition of “Medical Device and Pharmaceutical Manufacturing,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Medical Device and Pharmaceutical Manufacturing’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the collection of equipment and activities to prepare, utilize, maintain, and repair work areas, in order to accomplish one or more steps in preparing a medical device or pharmaceutical for its intended use. Manufacturing is typically, but not always, conducted in accordance with criteria and procedures established to meet requirements of the United States Food and Drug Administration and/or other applicable regulatory agencies with authority over manufacturing operations for global sales of medical devices and/or pharmaceuticals. Work areas and equipment shall include all machinery, tools, equipment, rooms, tables, countertops, and facilities for maintaining employee health and safety that are subject to such criteria and procedures. Prop. 211 at 16-17.

### **Section 211.4065: Non-Heatset**

Section 211.4065 of the Board’s air pollution regulations now provides that “‘Non-heatset’ means a class of lithography which does not require a heated dryer to solidify the printing inks. Ultraviolet-cured and electron beam-cured inks are considered non-heatset.” 35 Ill. Adm. Code 211.4065. The Agency proposes to revise this definition “to include letterpress printing lines.” SR at 14. The Agency states that this revision is necessitated by proposed amendments to Subpart H of Parts 218 and 219. SR at 13; *see* Prop. 218 at 57-129, Prop. 219 at 55-130. As proposed by the Agency, the revised definition would provide in its entirety that

“‘Non-heatset’ means a class of lithography or letterpress which does not require a heated dryer to solidify the printing inks. Ultraviolet-cured and electron beam-cured inks are considered non-heatset.” Prop. 211 at 17.

### **Section 211.5335: Radiation Effect Coating**

The Agency proposes to add a definition of “Radiation Effect Coating,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Radiation Effect Coating’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike prevention, electromagnetic pulse protection, and radar avoidance. Coatings that have been designated ‘classified’ by the Department of Defense are not included in this definition. Prop. 211 at 17.

### **Section 211.5535: Repair Cleaning**

The Agency proposes to add a definition of “Repair Cleaning,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Repair Cleaning’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning operation or activity carried out during a repair process.” Prop. 211 at 17.

### **Section 211.5585: Research and Development Operation**

The Agency proposes to add a definition of “Research and Development Operation,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that

‘Research and Development Operation’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an operation whose purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not involved in the manufacture of final or intermediate products for commercial purposes, except in a *de minimus* manner. Prop. 211 at 17.

### **Section 211.5860: Scientific Instrument**

The Agency proposes to add a definition of “Scientific Instrument,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Scientific Instrument’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an

instrument, including the components, assemblies, and subassemblies used in their manufacture, and associated accessories and reagents that is used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.” Prop. 211 at 18.

#### **Section 211.5875: Screen Printing**

The Agency proposes to add a definition of “Screen Printing,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Screen Printing’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a process in which the printing ink passes through a taught [sic] screen or fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.” Prop. 211 at 18.

#### **Section 211.5885: Screen Reclamation**

The Agency proposes to add a definition of “Screen Reclamation,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 14-15; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Screen Reclamation’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning activity carried out in a screen printing operation where the screen is completely cleaned and the stencil removed for recycling or reuse of the screen for other production runs.” Prop. 211 at 18.

#### **Section 211.6405: Sterilization Indicating Ink**

The Agency proposes to add a definition of “Sterilization Indicating Ink,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 15; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Sterilization Indicating Ink’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an ink that changes color to indicate that sterilization has occurred. Such ink is used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage.” Prop. 211 at 18.

#### **Section 211.6425: Stripping**

The Agency proposes to add a definition of “Stripping,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 15; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Stripping’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the removal of cured coatings, cured inks, or cured adhesives.” Prop. 211 at 18.

#### **Section 211.6535: Surface Preparation**

The Agency proposes to add a definition of “Surface Preparation,” stating that it is necessitated by proposed amendments to Sections 218.187 and 219.187. SR at 15; *see* Prop. 218

at 4-17, Prop. 219 at 4-17. The Agency’s proposed definition provides in its entirety that “‘Surface Preparation’ means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the removal of contaminants such as dust, soil, oil, and grease prior to coating, adhesive, or ink applications.” Prop. 211 at 18-19.

### **Section 211.7290: Wood Preparation**

Section 211.7290 of the Board’ air pollution regulations now provides that “‘Wood furniture’ means room furnishings including cabinets (kitchen, bath and vanity), tables, chairs, beds, sofas, shutters, art objects, wood paneling, wood flooring and any other coated furnishings made of wood, wood composition or fabricated wood materials.” 35 Ill. Adm. Code 211.7920. The Agency proposed to revise that definition by excluding flat wood paneling from it. SR at 15. The Agency states that this revision is necessitated by proposed amendments to Subpart F of Parts 218 and 219. *Id.*; see Prop. 218 at 17-57, Prop. 219 at 17-55. As proposed by the Agency, the revised definition would provide in its entirety that “‘Wood furniture’ means room furnishings including cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, wood paneling other than flat wood paneling, wood flooring, and any other coated furnishings made of wood, wood composition, or fabricated wood materials.” Prop. 211 at 19.

## **Part 218/Part 219**

### **Subpart A: General Provisions**

Existing Sections 218.106 and 219.106 establish general compliance dates for sources subject to Parts 218 and 219. See 35 Ill. Adm. Code 218.106, 219.106. The Agency “proposes adding a new subsection (e) to Section 218.106 and a new subsection (c) to Section 219.106. . . .” SR at 15; see Prop. 218 at 4, Prop. 219 at 3. The Agency states that these amendments “establish May 1, 2010, as the compliance date for sources subject to the flat wood paneling emission limits.” SR at 15.

### **Subpart E: Solvent Cleaning**

**Introduction.** Existing Subpart E of both Parts 218 and 219 addresses VOM emissions from solvent cleaning operations. See 35 Ill. Adm. Code 218.181-186, 219.181-186. The Agency states that industrial cleaning solvents include a number of products “used to clean dirt, soil, oil, and grease as well as remove adhesives, paints, and inks.” TSD at 5 (§2.4); see Bloomberg Test. at 6. The Agency further states that “VOM emissions occur during the cleaning process while wiping, flushing, brushing, and from the storage and disposal of used solvents and rags.” TSD at 6.

The Agency notes that USEPA has conducted studies of VOM emissions focusing on six industries: “automotive, electrical equipment, magnetic tape, furniture, packaging, and photographic supplies.” TSD at 6. The Agency claims that these studies revealed nine major categories in which cleaning processes result in VOM emissions: “spray gun cleaning, spray booth cleaning, large manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, tank cleaning, and small manufactured components cleaning.” *Id.*

The Agency argues that the first four account for a majority of VOM emissions from these categories and that spray gun cleaning alone accounts for 50 percent. *Id.* The Agency states that the CTG nonetheless “recommends coverage of a wide range of cleaning activities” and that its proposal reflects that recommendation. *Id.* The Agency emphasizes, however, that the proposal does not cover “[g]eneral cleaning of offices, bathrooms, and other janitorial type services.” *Id.*

**Current Regulations.** The Agency states that “Illinois has current regulations for cold cleaning degreasing, open top vapor degreasing, and conveyORIZED degreasing operations as well as some limitations and work practices on cleaning solvent uses in existing rules, *e.g.*, regulations regarding autobody refinishing, wood furniture coating, and lithographic printing.” TSD at 17 (§5.4).

**Summary of Proposed Amendments to Subpart E.** The Agency states that its proposal follows the CTG by establishing an “applicability threshold of 15 pounds per day of VOM emissions and in most of the required VOM limits.” Bloomberg Test. at 6; *see* TSD at 17. The Agency further states that affected sources must follow work practice standards regarding solvent use and either comply with a limit on the VOM content of cleaning solution, “use a low vapor pressure cleaning solution, or utilize an emissions control system that provides 85 percent overall control of VOM emissions from cleaning activities.” TSD at 17; *see* SR at 7, Bloomberg Test at 6-7, Tr.1 at 11-14 (addressing VOM content limit); *see generally* Prop. 218 at 5-17, Prop. 219 at 3-17.

The Board below summarizes each of the Agency’s proposed amendments to Subpart E on a section-by-section basis.

**Section 218/219.181: Solvent Cleaning in General.** The Agency first proposes to amend the titles of these two sections to “Solvent Cleaning Degreasing Operations.” SR at 15-16; *see* Prop. 218 at 4, Prop. 219 at 3-4. The Agency also proposes to amend these two sections “to specify that Sections 218/219.182 through 218/219.184 and Section 218/219.186 are applicable to cold cleaning, open top vapor, and conveyORIZED degreasing operations.” SR at 16.

**Section 218/219.187: Other Industrial Solvent Cleaning Operations.** The Agency proposes to add a new Section 218/219.187. SR at 16; *see* Prop. 218 at 4-17, Prop. 219 at 4-17. Below, the Board separately summarizes the subsections comprising it.

**Subsection (a).** The Agency’s proposed subsection (a)(1) establishes the section’s applicability by providing that, on and after April 1, 2011, “the requirements in Section 218/219.187 apply to all cleaning operations which use organic materials at sources that emit 6.8 kg/day (15 lbs/day) or more of VOM from cleaning operations at the source.” SR at 16; *see* Prop. 218 at 4, Prop. 219 at 4. In addition, the subsection defines “cleaning operations” for the purposes of this Section as

the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line

cleaning, floor cleaning, and tanks cleaning, at sources with emission units. Prop. 218 at 4, Prop. 219 at 4.

The Agency's proposed subsection (a)(2) "exempts numerous types of cleaning operations from some or all of the limitations in Section 218/219.187." SR at 16; *see* Prop. 218 at 4-7, Prop. 219 at 4-6; *see also* TSD at 11-12 (Exclusions). The first motion to amend states that USEPA has notified the Agency that it "may exempt digital printing from the control requirements set forth in Section 218/219.187 of its proposal." Mot. Amend 1 at 1-2 (¶2). The Agency recommended amending this subsection "by adding digital printing to the list of exclusions" in Section 218/219.187(a)(2)(C). *Id.*

**Subsection (b).** Proposed subsection (b) provides that no owner or operator of a source subject to this section shall perform subject cleaning operations unless the source complies with one of three requirements. SR at 16. First, the source may comply with the applicable VOM content limit. *Id.*; *see* Prop. 218 at 7-8 (proposed Section 218.187(b)(1)), Prop. 219 at 7-8 (proposed Section 219.187(b)(1)). In the second motion to amend, the Agency responds "to a recent request for clarification from an industry representative. . . ." Mot. Amend 2 at 1-2 (¶3). Specifically, the Agency proposes to amend this subsection to provide that the VOM content limitations "apply to as-used cleaning solution, excluding water and other compounds exempted from the definition of VOM." *Id.* at 1-2. The Agency states that "[t]his proposed amendment is consistent with the Illinois EPA's original intent and with existing VOM regulations. *Id.* at 2.

Second, the source may comply by using "cleaning materials with a composite vapor pressure of no more than 8.00 mmHg measured at 20 degrees Celsius." SR at 16; *see* Prop. 218 at 8 (proposed Section 218.187(b)(2)), Prop. 219 at 8 (proposed Section 219.187(b)(2)). Third, the source can comply by installing and operating an afterburner or carbon adsorber "that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall." SR at 16; *see* Prop. 218 at 8 (proposed Section 218.187(b)(3)), Prop. 219 at 8 (proposed Section 219.187(b)(3)). The Agency also proposes that

[t]he owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions. Prop. 218 at 8 (proposed Section 218.187(b)(3)), Prop. 219 at 8 (proposed Section 219.187(b)(3)).

**Subsection (c).** The Agency proposes that the owner or operator of a subject source "shall demonstrate compliance with this Section by using the applicable test methods and procedures in Section 218/219.187(g) and by complying with all applicable recordkeeping and reporting requirements in Section 219.187(e)." SR at 16; *see* Prop. 218 at 8 (proposed Section 218.187(c)), Prop. 219 at 8 (proposed Section 219.187(c)); *see also infra* at 18 (summarizing subsection g); *infra* at 16-18 (summarizing subsection (e)).

**Subsection (d).** The Agency proposes that the owner or operator of a subject source must comply with various operating requirements for each subject cleaning operation. SR at 17. First, the Agency seeks to require that they “[c]over open containers and properly cover and store applicators used to apply cleaning solvents.” Prop. 218 at 9 (proposed Section 218.187(d)(1)); Prop. 219 at 8 (proposed Section 219.187(d)(1); *see* SR at 17. Second, the Agency proposes that they “[m]inimize air circulation around the cleaning operation.” Prop. 218 at 9 (proposed Section 218.187(d)(2)); Prop. 219 at 8 (proposed Section 219.187(d)(2); *see* SR at 17. Third, the Agency seeks to require that an owner or operator “[d]ispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers” Prop. 218 at 9 (proposed Section 218.187(d)(3)); Prop. 219 at 8 (proposed Section 219.187(d)(3); *see* SR at 17. Finally, the Agency also proposes that they “[u]tilize equipment practices that minimize emissions.” Prop. 218 at 9 (proposed Section 218.187(d)(4)); Prop. 219 at 8 (proposed Section 219.187(d)(4); *see* SR at 17.

**Subsection (e).** The Agency proposes various recordkeeping and reporting requirements for the owner or operator of various sources. In subsection (e)(1), the Agency proposes that,

by May 1, 2010, sources exempt from the limitations of Section 218/219.187 because of the criteria in Section 218/219.187(a)(1) shall submit a certification to the Illinois EPA that includes a declaration that the source is exempt, as well as calculations which demonstrate that combined emissions of VOM from cleaning operations at the source never equal or exceed 6.8 kg/day (15 lbs/day). SR at 17; *see* Prop. 218 at 9 (proposed Section 218.197(e)(1)), Prop. 219 at 9 (proposed Section 219.187(e)(1).

The proposal also requires that “[s]uch sources shall notify the Illinois EPA of any records that show that the combined emissions of VOM from cleaning operations at the source ever equal or exceed 6.8 kg/day (15 lbs/day).” SR at 17; *see* Prop. 218 at 9 (proposed Section 218.197(e)(1)), Prop. 219 at 9 (proposed Section 219.187(e)(1). Originally, the Agency sought to require that “[s]uch notification shall include calculations showing the daily emissions of VOM from cleaning operations at the source for the day(s) in which emissions equaled or exceeded 6.8 kg/day (15 lbs/day).” Prop. 218 at 9, Prop. 219 at 9. In its first motion to amend, the Agency responded to comment from industry representatives by proposing to remove this requirement that a source provide calculations showing an exceedance. Mot. Amend 1 at 2 (¶3).

In proposed subsection (e)(2), the Agency seeks to require subject sources to submit a certification “[b]y April 1, 2011, or upon initial start-up of the source, whichever is later. . . .” Prop. 218 at 10 (proposed Section 218.187(e)(2)(A)), Prop. 219 at 9-10 (proposed Section 219.187(e)(2)(A)); *but see* SR at 17 (indicating deadline of May 1, 2010). The original proposal required that the certification include

1) a declaration that all subject cleaning operations are in compliance with the requirements of this Section; 2) identification of each subject cleaning operation and each VOM-containing cleaning solution used in such operation; 3) the limitation with which each subject cleaning operation will comply, and if complying with the emissions control system requirement, what type of emissions



control system will be used; 4) initial documentation that each subject cleaning operation will comply with the applicable limitation; 5) identification of the method that will be used to demonstrate continuing compliance with the applicable limitations; 6) a description of the practices and procedures that the source will follow to ensure compliance with the limitations of Section 218/219.187(d); and 7) a description of each cleaning operation exempt pursuant to Section 218/219.187(a)(2), if any, and a listing of the emission unit(s) on which the exempt cleaning operation is performed. SR at 17-18; *see* Prop. 218 at 9-10 (proposed Section 218.187(e)(2)), Prop. 219 at 9-10 (proposed Section 219.187(e)(2)).

In its first motion to amend, the Agency responded to comment from industry representatives by proposing to delete “the requirement that a subject source certify the limitation with which each subject cleaning operation will comply.” Mot. Amend 1 at 2-3 (¶4); *see* Prop. 218 at 10 (proposed Section 218.187(e)(2)(A)(iii), Prop. 219 at 10 (proposed Section 219.187(e)(2)(A)(iii); *see also* Tr.1 at 18-19.

In proposed subsection (e)(2)(B), the Agency seeks to require that subject sources, “[a]t least 30 days before changing the method of compliance between subsection (b)(1), (b)(2), and (b)(3) of this Section, notify the Agency in writing of such change.” Prop. 218 at 10 (proposed Section 218.187(e)(2)(B), Prop. 219 at 10 (proposed Section 219.187(e)(2)(B)). In its first motion to amend, the Agency responded to comment from industry representatives by proposing to delete “the requirement that a source notify the Illinois EPA at least 30 days in advance of changing its method of compliance between the VOM content limitation and vapor pressure limitation.” Mot. Amend 1 at 2-3 (¶4).

In subsection (e)(3), the Agency proposes recordkeeping provisions for sources complying with the VOM content limitations under subsection (b)(1). SR at 18; *see* Prop. 218 at 11-12 (proposed Section 218.187(e)(3)), Prop. 219 at 10-12 (proposed Section 219.187(e)(3)). In subsection (e)(4), the Agency proposes recordkeeping “provisions for sources complying with the VOM composite partial vapor pressure limitations in subsection (b)(2). . . .” SR at 18; *see* Prop. 218 at 12 (proposed Section 218.187(e)(4)), Prop. 219 at 12 (proposed Section 219.187(e)(4)). In subsection (e)(5), the Agency proposes recordkeeping “provisions for sources complying with the emissions control system requirements in subsection (b)(3). . . .” SR at 18; *see* Prop. 218 at 12-14 (proposed Section 218.187(e)(5)), Prop. 219 at 12-14 (proposed Section 219.187(e)(5)).

In subsection (e)(6), the Agency proposes that

[a]ll sources subject to the requirements of subsection (b) [Material and Control Requirements] and (d) [Operating Requirements] of this Section shall notify the Agency of any violation of subsections (b) or (d) by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation. Prop. 218 at 14 (proposed Section 218.187(e)(6)), Prop. 219 at 14 (proposed Section 219.187(e)(6)); *see* SR at 18.

In subsection (e)(7), the Agency proposes that “[a]ll records required by this subsection (e) shall be retained by the source for at least three years and shall be made available to the Agency upon request.” Prop. 218 at 14 (proposed Section 218.187(e)(7)), Prop. 219 at 14 (proposed Section 219.187(e)(7)); *see* SR at 18.

**Subsection (f).** In subsection (f), the Agency proposes to establish monitoring requirements applicable to sources demonstrating compliance with emissions control systems. SR at 18. Subsection (f)(1) establishes requirements applicable to sources employing an afterburner or carbon adsorber to demonstrate compliance. Prop. 218 at 14 (proposed Section 218.187(f)(1)), Prop. 219 at 14 (proposed Section 219.187(f)(1)). Subsection (f)(2) addresses emissions control systems other than an afterburner or carbon adsorber. Prop. 218 at 15 (proposed Section 217.187(f)(2)), Prop. 219 at 14 (proposed Section 219.187(f)(2)).

**Subsection (g).** In subsection (g), the Agency proposes to establish “requirements regarding testing to demonstrate compliance with Section 218/219.187.” SR at 19; *see* Prop. 218 at 15-17 (proposed Section 218.187(g)), Prop. 219 at 15-17 (proposed Section 219.187(g)). In its first motion to amend, the Agency proposed to amend this subsection “by clarifying when testing pursuant to such Section shall be performed.” Mot. Amend 1 at 3-4 (¶5).

## **Subpart F: Coating Operations**

Existing Subpart F addresses VOM emissions from various coating operations. *See* 35 Ill. Adm. Code 218.204-217, 219.204-217. For these two subparts, the Agency proposes a number of amendments, which largely address emission from flat wood paneling coating operations. *See* Prop. 218 at 17-57, Prop. 219 at 17-55.

**Introduction.** The Agency cites the CTG to state that “[f]lat wood paneling products are used in construction and can be classified as three main product types: decorative interior panels, exterior siding, and tileboard.” TSD at 6 (§2.5), citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standard, September 2006. The Agency states that “[d]ecorative interior panels are often embossed and usually grooved, having more decorative coating requirements than many other products.” TSD at 6. For these panels, the Agency indicates that “[s]ubstrates include hardwood, plywood, medium density fiberboard, and particle board.” *Id.*

With regard to exterior siding, the Agency states that it “may be coated at the production facility or on-site.” TSD at 6. The Agency indicates that on-site coating “is not subject to this proposed regulation.” *Id.* The Agency further states that, in addition to siding, “[e]xterior trim is also generally manufactured at the same production facility and coated with the same coatings.” In the classification, the Agency lists substrates including solid wood, hardboard, and waferboard. *Id.* With regard to tileboard, the Agency indicates that it “is used on high-moisture areas such as kitchens and bathrooms, and is considered a premium interior wall paneling.” TSD at 6. The Agency states that “[t]ileboard meets the specifications for Class I hardboard according to the American National Standards Institute.” *Id.*

The Agency states that producers coat flat wood paneling in order “to provide protection from the environment, modify the surface, and present a desired appearance.” TSD at 6. The Agency cites the CTG to state that

a typical flat wood coating facility applies stains and varnishes to natural plywood panels used for wall coverings. Other plants print wood grain patterns on particle board panels that were first undercoated with an opaque coating to mask the original surface. Coatings applied to flat wood surfaces include fillers, sealers, ‘groove’ coats, primers, stains, basecoats, inks and topcoats. TSD at 6, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standard, September 2006.

Addressing methods and techniques, the Agency cites the CTG to state that coating line processes typically begin “with mechanical alterations of the substrate (filing of holes, cutting of grooves, sanding, etc.). . . TSD at 7, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standard, September 2006. Following this step,

[m]ost coatings are applied by direct roll coating. Filler is usually applied by reverse roll coating. The offset rotogravure process is used where the coating and printing operation requires precision printing techniques. Other coating methods include spray techniques, brush coating and curtain coating. A typical flat wood paneling coating line includes a succession of coating operations. Each individual operation consists of the application of one or more coatings followed by a heated oven to cure the coatings. TSD at 7, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standard, September 2006.

The Agency states that, during these operations, “VOM emissions occur primarily during the coating process as the coatings dry and cure, but also as coatings are applied, and during mixture before application.” TSD at 7.

**Current Regulations.** The Agency states that “[t]here are currently no specific Illinois regulations covering flat wood paneling coating operations.” TSD at 17 (§5.5), Bloomberg Test. at 7. The Agency argues that these operations would be addressed by regulations applicable to “Other Emission Units” (35 Ill. Adm. Code 218.980-988, 219.980-988) and possibly by regulations applicable to wood furniture coating (*see* 35 Ill. Adm. Code 218.204(1), 219.204(1)), “depending on whether the operations fell into the definition related to that process.” TSD at 17; *see* Bloomberg Test. at 7.

**Summary of Proposed Amendments to Subpart F.** The Agency states that its proposed amendments to Subpart F “will add coating VOM requirements and work practice requirements for both coatings and associated cleaning operations.” TSD at 17; *see* Prop. 218 at 17-57, Prop. 219 at 17-55, SR at 7-8. Although the Agency notes the option of employing add-on emission controls, it adds that “the flat wood paneling coating category will require an overall

control of 90 percent rather than the 81 percent overall control required for existing coating categories.” TSD at 18. The Agency claims that “[t]he work practice requirements include several that are already required for wood furniture coaters, which have been accomplished without any problems known to the Agency.” *Id.*; *see* Bloomberg Test. at 7. The Agency characterizes as “common sense” such requirements as “minimizing spills of VOM-containing materials, minimizing VOM emissions during cleaning, and closing mixing vessels except when they are in use.” *Id.*

The Board below summarizes on a section-by-section basis each of the Agency’s proposed amendments to Subpart F.

**Section 218/219.204: Emission Limitations.** Existing Section 218/219.204 establishes emission limitations based upon VOM content for various categories of coating lines. 35 Ill. Adm. Code 218.204, 219.204. The Board below separately summarizes the Agency’s proposed amendments to these provisions. *See* Prop. 218 at 17-27, Prop. 219 at 17-26.

**Subsection (c).** Existing subsection (c), which provides emission limitations applicable to paper coating lines, includes a note stating in pertinent part that “[t]he paper coating limitation 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 limitation in Section 218.401 of this Part.” 35 Ill. Adm. Code 218.204(c), 219.204(c). The Agency proposes to amend this subsection by providing that the limitation also “shall not apply to any owner or operator of a paper coating line on which lithographic or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in Subpart H of this Part.” SR at 19; *see* 35 Ill. Adm. Code 218.401-411, 219.401-411 (Subparts H), Prop. 218 at 19, Prop. 219 at 19.

**Subsection (p)/(o).** The Agency proposes to add a new subsection (p) to Section 218.204 and a new subsection (o) to Section 219.204, both of “which restrict the VOM content of flat wood paneling coatings to 0.25 kg VOM/l coatings or 0.35 kg VOM/l solids or less. SR at 19; *see* Prop. 218 at 27, Prop. 219 at 26.

**Section 218/219.205: Daily-Weighted Average Limitations.** Existing Section 218/219.205 contains provisions for daily-weighted average limitations on VOM content. 35 Ill. Adm. Code 218.105, 219.105. The Agency proposes to amend subsection (a) “to include flat wood paneling coating lines in the daily-weighted averaging alternative.” SR at 19; *see* Prop. 218 at 28, Prop. 219 at 26-27.

**Section 218/219.207: Alternative Emission Limitations.** Existing Section 218/219.207 contains provisions for alternative emission limitations. 35 Ill. Adm. Code 218.107, 219.107. The Board below separately summarizes the Agency’s proposed amendments to these provisions. *See* Prop. 218 at 33-37, Prop. 219 at 31-36.

**Subsection (a).** The Agency proposes to amend this subsection to include flat wood paneling coating lines as a source category eligible for the alternative emission limitations option. SR at 19; *see* Prop. 218 at 33, Prop. 219 at 31-32.

**Subsection (h).** The Agency proposes to amend Section 218.207(h)(1) in order to correct the formatting of an equation pertaining to emissions from can coating lines. SR at 20; *see* Prop. 218 at 36.

**Subsection (l), (k).** The Agency proposes to add a subsection (l) to Section 218.207 and a subsection (k) to Section 219.207 in order to include flat wood paneling coating lines in the alternative emissions limitations option. SR at 19; *see* Prop. 218 at 37, Prop. 219 at 35-36. These proposed subsections “provide that a flat wood paneling coating line may utilize a capture system and control device if such system provides at least 90 reduction in the overall emissions of VOM from the coating line or the owner or operator of the flat wood paneling coating line complies with all requirements set forth in subsection (b)(2) of this Section.” SR at 19; *see* Prop. 218 at 37, Prop. 219 at 35-36.

**Section 218/219.210: Compliance Schedule.** Section 218/219.210 establishes compliance schedules applicable to various coating lines. 35 Ill. Adm. Code 218.210, 219.210. The Agency proposed to amend these sections by adding a subsection (g) providing that, on and after a date consistent with Section 218/219.206, sources subject to the flat wood paneling coating emission limitations shall comply with the applicable provisions in Subpart F.” SR at 20; *see* Prop. 218 at 39, Prop. 219 at 37.

**Section 218.211/219.211: Recordkeeping and Reporting.** Existing Section 218/219.211 contains various recordkeeping and reporting requirements. 35 Ill. Adm. Code 218.111, 219.111. The Board below separately summarizes the Agency’s proposed amendments to these provisions. *See* Prop. 218 at 39-50, Prop. 219 at 37-48.

**Subsections (c), (d).** The Agency proposes to amend these subsections “to provide that, for flat wood paneling coating lines, VOM content information shall be maintained and/or reported in terms of weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.” SR at 20; *see* Prop. 218 at 42-46, Prop. 219 at 40-44. The Agency also proposed to correct a spelling error in Section 218.211(c)(3)(A). SR at 20; *see* Prop. 218 at 43.

**Subsection (e).** The Agency proposes to amend this subsection “to provide that flat wood paneling coating lines complying pursuant to Section 218/219.207 [Alternative Emissions Limitations] shall comply with the recordkeeping and reporting requirements set forth in subsection (e).” SR at 20; *see* Prop. 218 at 46-47, Prop. 219 at 44-45.

**Subsection (g).** The Agency proposes to add a new subsection (g) establishing “recordkeeping and reporting requirements for flat wood paneling coating lines subject to the work practice requirements set forth in Section 218/219.217.” SR at 20; *see* Prop. 218 at 49-50, Prop. 219 at 48.

**Section 218.212/219.212: Cross-Line Averaging to Establish Compliance for Coating Lines.** Existing Section 218/219.212 contains provision for averaging across specified coating lines in order to establish compliance. 35 Ill. Adm. Code 218.212, 219.212. The

Agency proposes to amend subsection (a) “to provide that the cross-line averaging alternative is not available to flat wood paneling coating lines.” SR at 21; *see* Prop. 218 at 50-54, Prop. 219 at 48-53.

**Section 218.217/219.217: Wood Furniture Coating Work Practice Standards.**

Existing Section 218/219.217 establishes various work practice standards for wood furniture coating operations. 35 Ill. Adm. Code 218.217, 219.217. The Agency first proposes to change the title of this Section to “Wood Furniture Coating and Flat Wood Paneling Coating Work Practice Standards.” SR at 21; *see* Prop. 218 at 54, Prop. 219 at 53. The Board below separately summarizes the Agency’s proposed amendments to the provisions of these sections. *See* Prop. 218 at 54-57, Prop. 219 at 53-55

**Subsection (c).** In this re-designated subsection, the Agency proposes an amendment providing that “the flat wood paneling coating lines are subject to the existing cleaning and work practice requirements in this Section.” SR at 21; *see* Prop. 218 at 55-56, Prop. 219 at 54.

**Subsection (d).** The Agency proposes a new subsection “adding additional cleaning and storage requirements for flat wood paneling coating lines. . . .” SR at 21; *see* Prop. 218 at 56, Prop. 219 at 54-55. Specifically, the Agency proposes to require “that such coating lines minimize spills of VOM containing coatings, thinners, and cleaners, minimize emissions of VOM during cleaning activities, and keep mixing vessels which contain VOM coatings and other materials closed except when specifically in use.” SR at 21; *see* Prop. 218 at 56, Prop. 219 at 54.

**Subpart H: Printing and Publishing**

Existing Subparts H address VOM emissions from various printing and publishing sources. *See* 35 Ill. Adm. Code 218.401-411, 219.401-411. For these two subparts, the Agency proposes a number of amendments and the addition of new subsections addressing letterpress printing lines. *See* Prop. 218 at 57-129, Prop. 219 at 55-130. The Board separately addresses these amendments and additions in the following subsections of this opinion.

**Flexographic and Rotogravure Printing.**

**Introduction.** The Agency states that “[f]lexible packaging means any package or part of a package, the shape of which can be readily changed.” TSD at 4. The Agency further states that this packaging “includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.” *Id.* The Agency also indicates that “[s]hrink-wrap labels or wrappers (but not self-adhesive labels) printed on or in-line with a flexible packaging printing press are also considered to be flexible packaging.” *Id.* The Agency states, however, that the following items are not flexible packaging: “cartons, gift wraps, hot stamp foils, wall coverings, vinyl products, decorative laminates, floor coverings, or tissue products.” *Id.* at 5.

The Agency characterizes rotogravure printing as using “an image etched or engraved into a plate or cylinder.” TSD at 5. The Agency states that “[i]nks, coatings, and adhesives may be applied to a substrate through the rotogravure process.” *Id.* The Agency describes

flexographic printing as the use of “an image raised above the level of the printing plate, with the image carrier made of rubber or other flexible material.” *Id.* The Agency distinguishes the two in part by stating that “[f]lexographic printing is better suited to short production runs, in contrast to rotogravure printing, which is more useful for long runs.” *Id.* The Agency claims that “VOM emissions for both types of printing originate from the drying of inks as well as solvents used to clean presses and other components.” *Id.*

The Agency cites the CTG to state that “the use of waterbased inks is increasing.” TSD at 5, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. However, the Agency also notes that “[m]any facilities use hundreds of different inks to print various custom colors required by their packaging customers. Low [VOM] inks, coatings, and adhesives may not be available to meet all of the performance requirements.” TSD at 5, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

The Agency thus states that “most VOM control for flexible package printing is achieved through the use of add-on control devices.” TSD at 5. The Agency indicates that most of the VOM emitted through these processes “is captured through evaporation in a dryer, along with hoods and other collection devices for solvent that evaporates elsewhere in the printing process.” *Id.* The Agency claims that “[o]lder presses frequently do not allow for the same level of capture as newer installations do.” *Id.* However, the Agency cites the CTG to claim that “[t]here have been significant improvements in capture efficiency of flexographic presses and rotogravure presses’ since USEPA’s most recent review of those operations.” *Id.*, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency further cites the CTG to state that, “[s]ince 1990, many vendors have guaranteed capture efficiency of 85 to 90 percent without use of a permanent total enclosure.” TSD at 5, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency argues that control devices can now attain control efficiencies of at least 95 percent.” TSD at 5, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

**Current Regulations.** The Agency states that Illinois regulations currently “cover all flexographic, packaging rotogravure, and publication rotogravure printing.” TSD at 4, 17 (§§2.3, 5.3). The Agency further states that these different printing operations have identical VOM content limits on ink but differ in their add-on control requirements: “flexographic printers are required to get 60 percent overall VOM reduction, packaging rotogravure are required to get 65 percent overall reductions, and publication rotogravure must achieve 75 percent overall reduction.” *Id.*; see 35 Ill. Adm. Code 218.401(a)(1), (c)(4), 219.401(a)(1), (c)(4).

**Summary of Proposed Amendments Addressing Flexographic and Rotogravure Printing.** The Agency states that its proposal “separates out flexible packaging printing from the existing flexographic and rotogravure regulations.” TSD at 17; see *id.* at 4, Bloomberg Test. at

5; *see generally* Prop. 218 at 57-76, Prop. 219 at 55-75. The Agency argues that “any flexographic or rotogravure operation that is not printing on flexible packaging will not see a change to the applicable regulations.” *Id.* The Agency indicates, however, that “[s]ources that print on flexible packaging will need to meet either a tightened ink VOM content or add-on control requirement.” *Id.*; *see* SR at 8. The Agency states that the required efficiency of the add-on control “will depend on both the date of construction, at the source, of the press and the control device.” TSD at 17; *see* Bloomberg Test. at 6. The Agency claims that these factors reflect “that presses and control devices already installed at the source might not have been designed to obtain capture and control efficiencies as high as are currently obtainable.” TSD at 17. The Agency thus suggests that sources should not need to upgrade existing control devices. Tr.1 at 15-16.

The Agency states that “[t]he proposed regulations also require that printing lines that meet the CTG’s prescribed applicability threshold comply with work practice requirements for cleaning materials.” TSD at 5; *see* Bloomberg Test. at 6. The Agency further states that these practices include “keeping solvent containers closed except when filling, draining or conducting cleaning operations, keeping used shop towels in closed containers, and conveying cleaning materials from one location to another in closed containers or pipes.” TSD at 17, citing Control Techniques Guidelines for Flexible Packaging Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency stresses that “the applicability level for such work practices is much lower, at 15 pounds per day, as compared to the applicability thresholds of 25 tons per year potential to emit or 100 tons per year maximum theoretical emissions for the remainder of the rule.” Bloomberg Test. at 6.

**Section 218.401/219.401: Flexographic and Rotogravure Printing.** Existing Section 218/219.401 addresses VOM emissions from flexographic and rotogravure printing. 35 Ill. Adm. Code 218.401, 219.401. The Agency proposes to amend this provision “to separate the requirements that are applicable prior to the new compliance date from those applicable after the new compliance date. SR at 21. Below, the Board summarizes those proposed amendments on a subsection-by-subsection basis.

***Subsection (a).*** The Agency proposes to amend this subsection to require that, “on and after May 1, 2010, owners and operators of flexographic and rotogravure printing lines that do not print flexible packaging and that are complying with subsection (a) shall comply with the existing VOM regulations.” SR at 21; *see* Prop. 218 at 57, Prop. 219 at 55-56. The Agency seeks also to require that “[o]wners and operators of flexographic and rotogravure printing lines that print flexible packaging or that print flexible packaging and non-flexible packaging on the same line shall restrict the VOM content of coatings and inks to .8 kg VOM/kg solids applied or .16 kg VOM/kg materials applied or less.” SR at 21-22; *see* Prop. 218 at 57-58, Prop. 219 at 56.

***Subsection (b).*** The Agency proposes to amend this subsection to require that, “on and after May 1, 2010, owners and operators of flexographic and rotogravure printing lines that do not print flexible packaging and that are complying with subsection (b) shall comply with the existing weighted averaging requirements.” SR at 22; *see* Prop. 218 at 58-62, Prop. 219 at 56-61. The Agency also seeks to require that



[o]wners and operators of flexographic and rotogravure printing lines that print flexible packaging, or that print flexible packaging and non-flexible packaging on the same line, and that are complying with subsection (b) shall not apply coatings or inks on the subject printing line unless the weighted average, by weight, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the VOM limitations specified in the amendments to subsection (a) of this Section. SR at 22; *see* Prop. 218 at 58-62, Prop. 219 at 56-61.

The Agency also proposes specific “equations for calculating the weighted average VOM content for such lines.” SR at 22; *see* Prop. 218 at 58-62, Prop. 219 at 56-61. Finally, the Agency proposes a number of non-substantive corrections to the existing language. *See* SR at 22.

**Subsection (c).** The Agency proposes to amend this subsection to require that, “on and after May 1, 2010, the owner or operator of a flexographic or rotogravure printing line that does not print flexible packaging and that is complying with subsection (c) shall equip the printing line with a capture system and control device that complies with the existing control efficiency requirements.” SR at 22; *see* Prop. 218 at 62-65, Prop. 219 at 61-64. The Agency seeks also to amend this provision by requiring that “[t]he owner or operator of a flexographic or rotogravure printing line that prints flexible packaging shall equip the printing line with a capture system and control device that provides an overall reduction in VOM emissions of 65-80 percent, depending on the dates that the printing line and control system were first constructed at the subject source.” SR at 22-23; *see* Prop. 218 at 62-65, Prop. 219 at 61-64. The Agency also proposes to require that “[t]he owner or operator of a flexographic or rotogravure printing line that prints flexible packaging and non-flexible packaging on the same line shall comply with the overall control efficiency requirements set forth in either [proposed] subsection (c)(1)(D) or [proposed] subsection (c)(3) of this Section, whichever is more stringent.” SR at 23, *see* Prop. 218 at 62-65, Prop. 219 at 61-64.

The Agency also proposes to amend subsection (c)(6) “to specify the printing lines that are required to perform testing pursuant to this subsection.” SR at 23; *see* Prop. 218 at 64-65, Prop. 219 at 63-64.

**Subsection (d).** The Agency seeks to add a new subsection (d). The Agency proposes “that VOM-containing cleaning materials associated with flexographic or rotogravure printing lines that print flexible packaging or print flexible packaging and non-flexible packaging on the same line shall be kept, stored, and disposed of in closed containers, and conveyed from one location to another in closed containers or pipes.” SR at 23; *see* Prop. 218 at 65, Prop. 219 at 64.

**Section 218.402/219.402: Applicability.** Existing Section 218/219.402 addresses applicability of various requirements to flexographic and rotogravure printing lines. 35 Ill. Adm. Code 218.402, 219.402. The Agency proposes to add this section a subsection (b) providing that

the limitations of Section 218/219.401(d) apply to all flexographic and rotogravure printing lines that print flexible packaging or print flexible packaging and non-flexible packaging on the same line at sources where the combined

emissions of VOM from all flexographic and rotogravure printing lines total 6.8 kg/day (15 lbs/day) or more, in the absence of air pollution control equipment. SR at 23; *see* Prop. 218 at 66, Prop. 219 at 65.

**Section 218.403/219.403: Compliance Schedule.** Existing Section 218/219.403 establishes a compliance schedule for owners and operators of various flexographic and rotogravure printing lines. 35 Ill. Adm. Code 218.403, 219.403. The Agency proposes to add subsections (e), (f), and (g) to “establish May 1, 2010, as the compliance date for the requirements set forth in the proposed amendments.” SR at 23; *see* Prop. 218 at 67-68, Prop. 219 at 66.

**Section 218.404/219.404: Recordkeeping and Reporting.** Existing Section 218/219.404 addresses recordkeeping and reporting requirements applicable to various printing lines. 35 Ill. Adm. Code 218.404, 219.404. The Board below separately addresses those amendments on a subsection-by-subsection basis.

**Subsection (b).** The Agency proposes to amend the section to refer to “recordkeeping and reporting compliance dates for printing lines subject to the limitations in the proposed amendments to Section 218/219.401.” SR at 24; *see* Prop. 218 at 68-70, Prop. 219 at 67-69. In its first motion to amend, the Agency responded to a request from industry representatives by proposing to amend subsection (b)(1)(B) “by deleting references to instruments by which owner[s] or operators may calculate the volume or weight of coatings and inks as applied each day on subject coating lines, as such instrumentation is not currently available to sources.” Mot. Amend 1 at 4-5 (¶6); *see* Tr.1 at 19-20.

**Subsections (c), (d).** The Agency proposes to amend subsections (c) and (d) “to clarify that the owner or operator of a printing line subject to the requirements in Section 218/219.401(a)(2)(B) or (b)(3) shall certify in accordance with subsection (c)(1) or (d)(1), as applicable, even if the owner or operator of such line submitted a certification prior to January 1, 2010.” SR at 24; *see* Prop. 218 at 70-73, Prop. 219 at 69-72. In its first motion to amend, the Agency responded to a request from industry representatives by proposing to amend subsection (d)(1)(D) “by deleting references to instruments by which owner[s] or operators may calculate the volume or weight of coatings and inks as applied each day on subject coating lines, as such instrumentation is not currently available to sources.” Mot. Amend 1 at 4-5 (¶6); *see* Tr.1 at 19-20.

**Subsection (e).** The Agency proposes to amend subsection (e) “to provide that if the owner or operator of a printing line is not required to perform testing of a capture system and control device pursuant to Section 218/219/401(c)(6), the owner or operator shall submit a certification to the Agency that includes specified information” listed in proposed subsection (e)(1)(B). SR at 24; *see* Prop. 218 at 73-74, Prop. 219 at 72-73.

The Agency also proposes to add a new subsection (e)(4) providing that, “by May 1, 2010, owners or operators of printing lines subject to Section 218/219.401(c)(3) or (c)(4) shall submit to the Illinois EPA records documenting the dates each subject printing line and control device were constructed at the subject source.” SR at 24; *see* Prop. 218 at 75, Prop. 219 at 74.

**Subsection (f).** The Agency also proposes to add a new subsection (f) to establish “recordkeeping and reporting requirements for any owner or operator of a flexographic or rotogravure printing line that prints flexible packaging or prints flexible packaging and non-flexible packaging on the same line and which is exempt from the limitations of Section 218/219.401(d) because of the criteria in Section 218/219.402(b).” SR at 24; *see* Prop. 218 at 75-76, Prop. 219 at 74-75. In its first motion to amend, the Agency responds to comment from industry representatives by proposing to remove from subsection (f)(2) “the requirement that a source include in its notification to the Illinois EPA calculations showing an exceedance of the applicability threshold.” Mot. Amend 1 at 5-6 (¶7).

**Subsection (g).** The Agency also proposes to add a new subsection (g) to establish “recordkeeping and reporting requirements for any owner or operator of a printing line subject to the limitations of Section 218/219.401(d),” which addresses VOM-containing cleaning materials. SR at 24-25; *see* Prop. 218 at 76, Prop. 219 at 75.

**Subsection (h).** The Agency also proposes to add a new subsection (h) providing in its entirety that “[a]ll records required by subsections (f) and (g) shall be retained for at least three years and shall be made available to the Agency upon request.” Prop. 218 at 76, Prop. 219 at 75; *see* SR at 25.

### **Lithographic Printing.**

**Introduction.** The Agency states that “[l]ithography is a planographic method of printing; that is, the printing and nonprinting areas are essentially in the same plane on the surface of a thin ‘lithographic’ plate.” TSD at 3. The Agency further states that the two areas are distinguished chemically by rendering the image area water repellent and the nonimage area water receptive.” *Id.*

The Agency describes the category of offset lithographic printing: “ink is transferred from the lithographic plate to a rubber-covered ‘intermediate’ or ‘blanket’ cylinder and then to the substrate.” TSD at 3. The Agency states that this “[t]ransfer of the ink from the lithographic plate to the blanket cylinder, rather than directly to the substrate, is the offset characteristic of this type of printing.” *Id.*

The Agency states that offset lithographic printing itself can be categorized by the manner in which the substrate is fed to the press. TSD at 3. The Agency indicates that, “[i]n sheet-fed printing, individual sheets of paper or other substrate are fed to the press. In web printing, continuous rolls of paper are fed to the press and the paper is cut to size after it is printed.” *Id.*

The Agency states that pigments, vehicles, binders, and other additives comprise lithographic inks. TSD at 3. The Agency further states that pigments include both organic and inorganic materials. *Id.* The Agency indicates that “[l]ithographic inks may be heatset, where heat is required to set the ink, or non-heatset, where the inks are set by absorption into the substrate by oxidation or other methods not requiring added heat.” *Id.* The Agency claims that

“[h]eatset inks may contain up to 45 percent VOMs.” *Id.* The Agency also lists the characteristics of non-heatset inks: higher boiling points, less pastiness, and usually less than 35 percent VOM content. *Id.* The Agency also states that “[m]ost non-heatset inks used in sheet-fed printing are below 25 percent VOM.” *Id.*

The Agency states that printing operations apply a fountain solution to a lithographic plate to render nonimage areas unreceptive to ink. TSD at 3. The Agency further states that, “[s]ince printing inks are oil-based and oil is repelled by water, the fountain solution is water-based.” *Id.* The Agency indicates that these fountain solutions also contain “small quantities of gum arabic or synthetic resins, acids, and buffer salts to maintain the pH of the solution, and a wetting agent or ‘dampening aid’ to enhance the spreadability of the fountain solution across the print plate.” *Id.* The Agency states that the dampening aid reduces the surface tension of water and increases viscosity. *Id.*

The Agency states that, since the 1950s, isopropyl alcohol, a VOM, “has been used as the primary dampening aid.” TSD at 3. The Agency further states that “[e]thanol and normal propyl alcohol have also been used in this capacity.” *Id.* The Agency indicates that, “[b]efore the 1980s, concentration of alcohol in the fountain solution could range from 0 to 35 percent or higher, with most presses using between 15 and 20 percent.” *Id.* The Agency argues that printers have since reduced the alcohol content of fountain solution and have “often replaced alcohol completely with other dampening aids.” *Id.* at 4.

The Agency states that printers use cleaning solutions “to remove excess printing inks, oils, and paper components from press equipment” and also “to wash the blankets, the rollers, the outside of the presses, and to remove excess ink residue between color changes.” TSD at 4. The Agency further states that these “solutions are petroleum-based solvents, often mixed with detergent and/or water.” *Id.* The Agency indicates that “[t]he cleaning compound may be a single solvent, such as kerosene, or a combination of solvents.” *Id.*

**Current Regulations.** The Agency states that Illinois now “has regulations covering all types of lithographic printing in the NAAs, with an applicability level of 100 PPD (calculated monthly). In addition, there is a secondary applicability level of 100 tons per year of maximum theoretical emissions for heatset web lithographic printing, which was carried over from the previous rule.” TSD at 15.

Regarding fountain solution, the Agency states that current regulations applicable to heatset web presses in the two NAAs “require that subject sources use no more than 1.6 percent alcohol, or 3 percent if the fountain solution is refrigerated.” TSD at 4; *see* 35 Ill. Adm. Code 218.407(a)(1)(A)(i), (ii); 219.407(a)(1)(A)(i), (ii). The Agency further states that “fountain solution using only alcohol substitutes may use up to 5 percent VOM.” TSD at 4; *see* 35 Ill. Adm. Code 218.407(a)(1)(A)(iii), 219.407(a)(1)(A)(iii). The Agency also states that “[n]on-heatset web presses cannot use any alcohol and are subject to the same 5 percent VOM limit.” TSD at 4; *see* 35 Ill. Adm. Code 218.407(a)(2), 219.407(a)(2). Finally, “[s]heet-fed presses are limited to 5 percent VOM content or 8.5 percent if the solution is refrigerated.” TSD at 4; *see* 35 Ill. Adm. Code 218.407(a)(3), 219.407(a)(3).

**Summary of Proposed Amendments Addressing Lithographic Printing.** The Agency states that its “proposal does not reduce the applicability threshold for add-on control devices used by heatset presses.” TSD at 15. The Agency thus argues that “no new lithographic printing units will need to add controls.” *Id.*; *see* SR at 8. The Agency indicates, however, that “new control devices on heatset web lithographic presses will need to meet a 95 percent control efficiency instead of the current 90 percent limit.” TSD at 15; *see* Bloomberg Test. at 3. The Agency expresses the belief that “control devices in existence today can meet the 95 percent limit, but at the request of printing industry representatives, the Agency has agreed not to ask existing sources to meet the higher control efficiency.” TSD at 15; *see* Tr.1 at 14-15.

The Agency states that its proposal establishes “a new applicability threshold of 15 PPD for fountain solution and cleaning solution requirements for all lithographic printing operations.” TSD at 15; *see* Bloomberg Test. at 3. The Agency further states that “[t]he requirements are the same as are already present in the Illinois regulations, other than a correction to the fountain solution limits that changes their measurement from ‘by volume’ to ‘by weight.’” *Id.*

The Agency emphasizes that “sources between 15 and 100 PPD will be able to take advantage of several new exclusions pertaining to fountain and cleaning solutions.” TSD at 15. The Agency states that “[s]heet-fed presses that print substrates no larger than 11 inches by 17 inches and any lithographic press with a fountain solution reservoir of no larger than one gallon are not required to comply with the fountain solution requirements.” *Id.*; *see* Bloomberg Test. at 4. The Agency further states that “sources in this [15 to 100 PPD] group will also need to meet only a 70 percent VOM content limit in cleaning solutions rather than the 30 percent limit that is applicable to sources over 100 PPD.” TSD at 15. Finally, the Agency also states that “[a]ll such sources will also be able to use up to 100 gallons of cleaning solution per year that do not meet either the VOM content or vapor pressure requirements.” *Id.* at 15-16.

The Agency states that, “[b]ecause of the new exclusions that apply only between 15 and 100 PPD, even subject sources in this group must continue to calculate emissions to ensure they do not exceed the 100 PPD threshold and lose the exclusions.” TSD at 16. The Agency further states that “[s]ources may opt out of the exclusions if they do not wish to make use of them, and thus would not need to calculate emissions in this fashion.” *Id.*; *see* Bloomberg Test. at 4.

The Agency states that “[s]ources which fall below one of the applicability limits, and are thus exempt from one or more control requirements, must certify this exemption to the Illinois EPA through calculations showing that their emissions will not exceed the applicable VOM threshold.” TSD at 16. The Agency further states that “[t]hese calculations must include all VOM emissions, including inks, fountain solution, and cleaning solvents, and are determined on a monthly basis.” *Id.*

The Agency emphasizes that current regulations recognize “that the substrate retains some of the VOM present in the ink, and this a retention factor of 0.95 is used when calculating emissions from non-heatset inks, and a factor of 0.20 is used when calculating emissions from heatset inks.” TSD at 16; *see* Bloomberg Test. at 4. The Agency notes that current regulations also contain “a factor recognizing that VOM remains on solvent-laden rags that are stored and disposed of properly.” TSD at 16; *see* Bloomberg Test. at 4. The Agency states that “[t]hese

factors continue to be allowed for determination of applicability.” TSD at 16. The Agency also notes that its “proposal adds emission adjustment factors to be used in other situations when not determining applicability (such as Annual Emissions Reports and permit limits).” *Id.* The Agency claims that “[t]hese factors take into account carryover of VOM from automatic blanket wash and fountain solutions into the dryer and control device.” *Id.*, citing Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006; *see* Bloomberg Test. at 5.

**Section 218.405/219.405: Lithographic Printing: Applicability.** Existing Section 218/219.405 addresses applicability of various provisions to lithographic printing operations. 35 Ill. Adm. Code 218.405, 219.405. The Board below separately addresses those amendments on a subsection-by-subsection basis.

**Subsections (a), (b).** The Agency first proposes “to separate requirements that are applicable prior to the new compliance date from those applicable after the new compliance date.” SR at 25; *see* Prop. 218 at 76-79, Prop. 219 at 75-78. The Agency also seeks to delete the current subsection (a), which establishes “requirements that were only applicable until March 15, 1996, and reformatting/renumbering the remaining subsections accordingly.” SR at 25; *see* Prop. 218 at 76-79, Prop. 219 at 75-78.

**Subsection (c).** The Agency proposes to add a new subsection (c)(1) providing that, on and after May 1, 2010,

the requirements in Section 218/219.407(a)(1)(B) through (a)(1)(E) and 218/219.407(b) and all applicable provisions in Sections 218/219.408 through 218/219.411 of this Subpart shall apply to all owners or operators of heatset web offset lithographic printing line(s) if the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) ever exceed 45.5 kg/day (100 lbs/day), before the application of capture systems and control devices. SR at 25; *see* Prop. 218 at 78, Prop. 219 at 77.

The Agency seeks to require in new subsection (c)(2) that, on and after May 1, 2010,

Sections 218/219.407(a)(1)(A), 218/219.407(a)(2) through (a)(5), and all applicable provision sin Sections 218/219.408 through 218/219.411, shall apply to all owners and operators of lithographic printing lines at sources where the combined emissions of VOM from all lithographic printing lines at the source (including solvents use for cleanup operations associated with the lithographic printing lines) ever total 6.8 kg/day (15 lbs/day) or more. SR at 25; *see* Prop. 218 at 78, Prop. 219 at 77.

Finally, the Agency proposed in new subsection (c)(3) that,

at sources where the combined emissions of VOM from all lithographic printing line(s) at the source equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), before the application of capture systems and control devices, certain specified exclusions apply unless the owner or operator of the source certifies that the source will not make use of any such exclusions. SR at 25-26; *see* Prop. 218 at 78-79, Prop. 219 at 77-78.

In its first motion to amend, the Agency proposed to correct cross-references in Sections 218/219.405(c)(1) and (c)(2) to Section 218/219.408, which the Agency seeks to repeal. Mot. Amend 1 at 6-7 (¶8); *see* Prop. 218 at 89, Prop. 219 at 88-89. The Agency states that the cross-references had been “inadvertently left in the rule.” Mot. Amend 1 at 6.

**Section 218.406/219.406: Provisions Applying to Heatset Web Offset Lithographic Printing Prior to March 15, 1996.** The Agency states that it seeks to repeal this section, “as it contains requirements that were applicable prior to March 15, 1996.” SR at 26; *see* Prop. 218 at 79-86, Prop. 219 at 78-85.

**Section 218.407/219.407: Emission Limitations and Control Requirements for Lithographic Printing Lines On and After March 15, 1996.** Existing Section 218/219.407 establishes various requirements applicable to lithographic printing lines on and after March 15, 1996. 35 Ill. Adm. Code 218.407, 219.407. The Agency first proposes to amend this section “by deleting references to the previous compliance date of March 15, 1996, and separating requirements that are applicable prior to the new compliance date from those applicable after the new compliance date.” SR at 26; *see* Prop. 218 at 86-89, Prop. 219 at 85-88. The Agency also proposes to change “the VOM content limitations for fountain solutions from ‘by volume’ to ‘by weight,’ as USEPA has informed that Illinois EPA that this is the appropriate way to measure the limit.” SR at 26; *see* Prop. 218 at 86-89, Prop. 219 at 85-88.

**Subsection (a).** The Agency specifically proposes to amend subsection (a)(1)(C) to provide that

on and after May 1, 2010, owners or operators of subject heatset web offset lithographic printing lines shall install and operate an afterburner . . . so that VOM emissions from the press dryer exhaust are reduced by 90-95 percent, by weight, depending on the date that the afterburner . . . was first constructed at the subject source, or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon). SR at 26; *see* Prop. 218 at 87, Prop. 219 at 86.

The Agency also proposes to amend subsection (a)(1)(D) in order “to delete references to monitoring requirements already set forth in Section 218/219.410.” SR at 26; *see* Prop. 218 at 87, Prop. 219 at 86.

In addition, the Agency seeks to amend subsection (a)(4) to provide that,

on and after May 1, 2010, owners or operators of sources that meet the applicability criteria in Section 218/219.405(c)(3) and do not certify pursuant to

Section 218/219.411(g)(1)(B) that the source will not make use of any of the exclusions in Section 218/219.405(c)(3) shall not cause or allow the use of a cleaning solution on any lithographic printing line unless the VOM content of the as-used cleaning solution is less than or equal to 70 percent, by weight, or shall satisfy the alternative VOM composite partial vapor pressure limitation. SR at 27; *see* Prop. 218 at 88, Prop. 219 at 87.

The Agency also proposes to amend subsection (a)(5) in order “to specify that the storage and disposal requirements for cleaning materials apply except when such materials are specifically in use.” SR at 27; *see* Prop. 218 at 88, Prop. 219 at 87

***Subsection (b).*** The Agency specifically proposes to amend subsection (b) to provide that

on and after May 1, 2010, owners or operators of subject heatset web offset lithographic printing lines shall install and operate an afterburner or other approved control device so that VOM emissions from the press dryer exhaust are reduced by 90-95 percent, by weight, depending on the date that the afterburner or other control device was first constructed at the subject source, or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon). SR at 26; *see* Prop. 218 at 88, Prop. 219 at 87-88.

**Section 218.408/219.408: Compliance Schedule for Lithographic Printing On and After March 15, 1996.** The Agency proposes to repeal this section in its entirety, “as the pertinent compliance dates are set forth in Section 218/219.405.” SR at 27; *see* Prop. 218 at 89, Prop. 219 at 88-89; *see also* Prop. 218 at 76-79, Prop. 219 at 75-78 (proposed Section 218/219.405).

**Section 218.409/219.409: Testing for Lithographic Printing On and After March 15, 1996.** Existing Section 218/219.409 addresses testing for lithographic printers. 35 Ill. Adm. Code 218.409, 219.409. The Agency originally proposed to amend this section by “deleting a reference to the previous compliance date of March 15, 1996 in the title. . . .” SR at 27; *see* Prop. 218 at 89, Prop. 219 at 89.

In its first motion to amend, the Agency also proposed amending subsections (a) and (c) in order to clarify “when testing pursuant to such Section shall be performed.” Mot. Amend 1 at 7-8 (¶9). In the same motion, the Agency also proposed to amend subsection (c) “by correcting an internal cross-reference.” *Id.*

**Section 218.410/219.410: Monitoring Requirements for Lithographic Printing.** The Agency’s original rulemaking proposal did not seek to amend Section 218/219.410, which addresses monitoring requirements for lithographic printers. *See* SR at 27, Prop. 218 at 91, Prop. 219 at 91; *see also* 35 Ill. Adm. Code 218.410, 219.410. In its first motion to amend, the Agency responded to a comment from industry representatives by noting “several incorrect internal cross-references within the current Section 218/219.410.” Mot. Amend 1 at 8 (¶10).



Accordingly, the Agency “proposes amending subsections (b)(1), (b)(2), (e)(1)(B), and (e)(2) to correct the cross-references.” *Id.* at 8-14.

**Section 218.411/219.411: Recordkeeping and Reporting for Lithographic Printing.**

Existing Section 218/219.411 addresses recordkeeping and reporting requirements applicable to lithographic printers. *See* 35 Ill. Adm. Code 218.411, 219.411. Generally, the Agency proposes to amend “this Section by deleting references to the previous compliance date of March 15, 1996, and clarifying the requirements that apply to sources prior to the new compliance date and those that apply on and after the new compliance date.” SR at 27-28; *see* Prop. 218 at 92-114, Prop. 219 at 91-114.

**Subsection (a).** Existing subsection (a) addresses lithographic printing lines exempt from the limitations of Section 218/219.407 on the basis of criteria in Section 218/219.405. *See* 35 Ill. Adm. Code 218.411(a), 219.411(a). The Agency proposes to add to this subsection “the equation for calculating maximum theoretic emissions of VOM, which was previously contained in Section 218/219.406.” SR at 28; *see* Prop. 218 at 93-95, Prop. 219 at 92-94. In its first motion to amend, the Agency proposes to amend the key to that equation “by deleting reference to instruments by which owners or operators may calculate the volume of inks as applied each day on subject printing lines, as such instrumentation is not currently available to sources.” Mot. Amend 1 at 14-15 (¶11).

**Subsection (b).** The Agency proposes “adding a new subsection (b), which contains recordkeeping and reporting provisions for printing lines that are exempt on and after May 1, 2010. . . .” SR at 28. Proposed subsection (b)(1) specifically addresses printing lines exempt under Section 218.405(c)(2). In addition to standard recordkeeping and reporting requirements, the Agency in that provision

proposes an emission adjustment factor to be used when determining VOM emissions from inks used on lithographic printing line(s) at the source, as well as an emission adjustment factor to be used when calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. SR at 28; *see* Prop. 218 at 95-100, Prop. 219 at 94-100.

At the request of industry representatives, the Agency also proposes in subsection (b)(1)(C) an alternative to the VOM emissions calculations in subsection (b)(1)(B): “a source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM if it complies with material use limitations during each month.” SR at 28, Tr.1 at 21; *see* Prop. 218 at 97, Prop. 219 at 96-97. The Agency seeks to provide that this material use alternative is limited to sources with only single type of lithographic printing operation. SR at 28; *see* Prop. 218 at 97, Prop. 219 at 96. The Agency proposes that, “[i]f a source exceeds the material use limitation in any given month, the source shall complete emissions calculations pursuant to subsection (b)(1)(B) within 15 days of the end of that month.” SR at 28; *see* Prop. 218 at 97, Prop. 219 at 96. The Agency further proposes that a source exceeding the limitations for six consecutive months is no longer eligible to rely on the alternative. SR at 28-29; *see* Prop. 218 at 97, Prop. 219 at 96-97.

In its first motion to amend, the Agency notes that “USEPA previously recommended that material use thresholds for such lines be conservatively based on the pound per day applicability threshold.” Mot. Amend 1 at 15 (¶12). The Agency states that “USEPA has now determined that a 90 percent emission equivalency level is acceptable for both lithographic and letterpress printing operations.” *Id.* The Agency sought to amend subsection (b)(1)(C)(i) and (b)(1)(C)(ii) of its proposal to reflect that subsequent USEPA determination. *Id.* at 15-16.

Also in its first motion to amend, the Agency responded to a comment by industry representatives by proposing to amend subsection (b)(1)(E). Mot. Amend 1 at 16 (¶13). Specifically, the Agency seeks to remove “the requirement that a source include in its notification to the Illinois EPA calculations showing an exceedance of the applicability threshold.” *Id.* at 16-17. Responding to a question at the first hearing, the Agency clarified that, when a source reports an exceedance under this provisions, “they do not have to tell us how much they exceeded it by.” Tr.1 at 22. The Agency emphasized that this requirement intends chiefly to determine whether a source is subject to the rule and not to determine the precise amount of an exceedance. *See id.* at 22-23.

The Agency also proposes a new subsection (b)(2) addressing “heatset web offset lithographic printing lines exempt pursuant to Section 218/219.405(c)(1) but not exempt pursuant to Section 218/219.405(c)(2). SR at 29; *see* Prop. 218 at 98-100, Prop. 219 at 98-100. In addition to standard recordkeeping and reporting requirements, the Agency in that provision

proposes an emission adjustment factor to be used when determining VOM emissions from inks used on lithographic printing line(s) at the source, and an emission adjustment factor to be used when calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers.” SR at 29; *see* Prop. 218 at 98-100, Prop. 219 at 98-100.

In its first motion to amend, the Agency responded to a comment by industry representatives by proposing to amend subsection (b)(2)(D). Mot. Amend 1 at 15-17 (¶14). Specifically, the Agency seeks to remove “the requirement that a source include in its notification to the Illinois EPA calculations showing an exceedances of the applicability threshold.” *Id.*; *see* Tr.1 at 22.

**Subsection (c).** The Agency proposes to redesignate the existing subsection (a)(2) as subsection (c). Prop. 218 at 100-02, Prop. 219 at 100-02; *see* 35 Ill. Adm. Code 218.411(a)(2), 219.411(a)(2). The Agency seeks to amend this provision “to provide that the recordkeeping requirements in subsections (c)(1) or (c)(2) do not apply to sources utilizing the material use limitations alternative. SR at 29; *see* Prop. 218 at 100-02, Prop. 219 at 100-02. The Agency also proposes to delete subsection (c)(3). SR at 29; *see* Prop. 218 at 102, Prop. 219 at 102.

**Subsection (d).** Existing subsection (b) establishes requirements applicable to heatset web offset lithographic printing line(s) subject to Section 218/219.407(a)(1)(C) or (b)(1). *See* 35 Ill. Adm. Code 218.411(b), 219.411(b) In the redesignated subsection (d), the Agency proposes to add a requirement “that sources complying with the add-on control device requirements shall include in their initial certification to the Illinois EPA that date that the device was first

constructed at the subject source.” SR at 29; *see* Prop. 218 at 102-04, Prop. 219 at 102-04. The Agency also proposes to amend subsection (d)(3)(D) “to change the frequency that owners or operators of heatset web offset lithographic printing lines complying with the add-on control device requirements are required to check the air flow direction or air pressure of the dryer and press room from once a day to once per calendar month.” SR at 29; *see* Prop. 218 at 104, Prop. 219 at 104.

**Subsection (e).** Existing subsection (c) establishes requirements applicable to lithographic printing lines subject to Sections 218/219.407(a)(1)(A), (a)(2), or (a)(3). *See* 35 Ill. Adm. Code 218.411(c), 219.411(c). In the redesignated subsection (e), the Agency “proposes amending subsection (e)(1)(C) to provide that a source subject to fountain solution VOM content limitations shall include in its initial certification a statement that the fountain solution will comply with the VOM content limitations in Section 218/219.407(a)(1)(A), (a)(2), or (a)(3), as applicable.” SR at 30; *see* Prop. 218 at 105, Prop. 219 at 104. The Agency also proposes to amend subsection (e)(2)(C) “to provide that the weight of each component used in a fountain solution batch shall be recorded by sources, if applicable.” SR at 30; *see* Prop. 218 at 106, Prop. 219 at 106. In addition, the Agency “proposes deleting subsection (e)(4).” SR at 30; *see* Prop. 218 at 107, Prop. 219 at 107.

**Subsection (f).** Existing subsection (d) establishes requirements for lithographic printing lines subject to Section 218/219.407. 35 Ill. Adm. Code 218.411(d), 219.411(d). In the redesignated subsection (f)(1), the Agency proposes an amendment “to specify that lithographic printing line cleaning operations that are excluded pursuant to Section 218/219.405(c)(3)(C) are not required to submit a certification pursuant to subsection (f).” SR at 30; *see* Prop. 218 at 108, Prop. 219 at 107-08. In addition, the Agency “proposes deleting subsection (f)(1)(A), (f)(1)(C), and (f)(4), and amending the relettered subsection (f)(1)(A) to provide that a source subject to the cleaning requirements in Section 218/219.407 shall include in its initial certification a statement that the cleaning solution will comply with the limitations in Section 218/219.407(a)(4).” SR at 30; *see* Prop. 218 at 108-10; Prop. 219 at 108-10.

In its first motion to amend, the Agency responded to a request from industry representatives. Mot. Amend 1 at 17-18 (¶15). The Agency proposed amending subsections (f)(2)(B) and (f)(2)(C) “by specifying that, for cleaning solutions used as-purchased, sources may use manufacturer’s specifications to determine VOM content and VOM composite partial vapor pressure.” *Id.* at 18-19.

**Subsection (g).** The Agency proposes to add a new subsection (g). The Agency seeks to establish “recordkeeping and reporting requirements for owners or operators of lithographic printing line(s) subject to one or more of the exclusions set forth in Section 218/219.405(c)(3).” SR at 30; *see* Prop. 218 at 111-12, Prop. 219 at 110-12. Specifically, the Agency states that

[s]uch owners or operators shall submit an initial certification to the Illinois EPA, collect and record specified information for each subject printing line, notify the Agency if the printing line ever becomes ineligible for the exclusions set forth in Section 218/219.405(c)(3), and, if changing between opting out of such exclusions and utilization of the exclusions, submit an additional certification,

informing the Illinois EPA of the change. SR at 30-31; *see* Prop. 218 at 111-12, Prop. 219 at 110-12.

In responding to a question at the first hearing, the Agency indicated that, as a source, “you would not have to report the information under [subsection] (g)(2)(A) if you did state that you would not be using the exclusion.” Tr.1 at 16-18.

In its first motion to amend, the Agency responds to a request from industry representative by proposing to amend subsection (g)(2)(A)(ii) “to correct a grammar mistake.” Mot Amend 1 at 20 (¶16). Also in the first motion to amend, the Agency responds to an industry comment by proposing to amend subsection (g)(2)(B) “by removing the requirement that a source include in its notification to Illinois EPA calculations showing an exceedances of the applicability threshold.” *Id.* at 20-21 (¶17).

**Subsection (i).** The Agency also proposes to add a subsection (i). The Agency seeks to establish “emission adjustment factors that may be used when calculating VOM emissions from heatset web offset lithographic printing operations for purposes other than the applicability thresholds in Section 218/219.405.” SR at 31; *see* Prop. 218 at 112-14, Prop. 219 at 112-14.

### **Letterpress Printing.**

**Introduction.** The Agency states that “[l]etterpress printing involves the use of a reverse-imaged raised surface that is inked and then pressed against a substrate to transfer the image.” TSD at 4 (§2.2). The Agency further states that, compared with lithographic, flexographic, and rotogravure printing, “[l]etterpress operation make up a very small percentage of the printing industry.” *Id.* Based on its source inventory, the Agency indicates that “no letterpress printing facility could be found in the Metro-East NAA, with very few of these facilities found even in the Chicago NAA.” *Id.*

In testimony on behalf of the Agency, Mr. Bloomberg indicated that “the State is still required to promulgate the CTG regulations for this category.” Bloomberg Test. at 5. He further stated that “letterpress printing presses are often operated at the same source as lithographic printing[,] and many of the control options for letterpress printing are the same as the control options for lithographic printing as well. This is especially true in terms of cleaning solutions. As such, the proposed rule would adopt most of the RACT recommendations of the CTG.” *Id.*

The Agency states that letterpress and lithographic printing operations use inks that are “very similar” and may both be accomplished through sheet-fed and web presses. TSD at 4. The Agency thus argues that “ink emission sources are similar” to those of lithographic printing. *Id.* The Agency further argues that, although “[l]etterpress operations do not use fountain solutions,” they use cleaning solutions similar to those used in lithographic printing operations.” TSD at 4; *see* Bloomberg Test. at 5.

**Current Regulations.** The Agency states that “[t]here are no specific Illinois regulations covering letterpress printing operations; any such operations would therefore be covered by

Subpart TT, Section 218/219.301, or paper coating regulations. TSD at 16 (§5.2); *see* 35 Ill. Adm. Code 218.204(c), 218.301, 218.980-988, 219.204(c), 219.301, 219.980-988.

**Summary of Proposed Amendments Addressing Letterpress Printing.** The Agency states that its proposal addresses “both heatset and non-heatset letterpress operations.” TSD at 16; *see* Prop. 218 at 114-129, Prop. 219 at 114-30. The Agency further states that the proposal “would require that heatset letterpress printers use an add-on control device if they meet the applicability requirements of 25 TPY PTE plantwide.” TSD at 16; *see* SR at 8-9. The Agency believes that no operation in either of the two NAAs would be subject to this requirement. TSD at 16.

The Agency further states that “[a]ll letterpress printing operations of 15 PPD or more will be also required to abide by cleaning material limitations equivalent to those” applicable to lithographic printing sources emitting between 15 and 100 PPD. TSD at 16; *see* SR at 9. Specifically, such sources would be required to use cleaning solutions containing no more than 70 percent VOM or having a maximum composite partial vapor pressure or less than 10 mm Hg. *Id.* In his testimony on behalf of the Agency, Mr. Bloomberg stated that, because letterpress printing operations have never specifically been regulated in Illinois, this 70 percent content limit represents no loosening of existing standards. Bloomberg Test. at 5.

**Section 218.412/219.412: Letterpress Printing Lines: Applicability.** The Agency proposes a new Section 218/219.412 addressing the applicability of the proposed letterpress printing provisions. SR at 31; *see* Prop. 218 at 114, Prop. 219 at 114. Below, the Board summarizes those proposed additions on a subsection-by-subsection basis.

***Subsection (a).*** The Agency proposes a new subsection (a)(1) providing “that the limitations in Section 218/219.413 through 218/219.416 apply to all owners of operators of heatset web letterpress printing lines if such lines (including solvents used for cleanup operations associated with such lines) at the source have a potential to emit 22.7 Mg (25 tons) or more of VOM per year.” SR at 31; *see* Prop. 218 at 114, Prop. 219 at 114. The Agency also proposes a new subsection (a)(2) providing that “Sections 218/219.413 through 218/219.416 apply to all owners or operators of letterpress printing lines at sources where the combined emissions of VOM from all letterpress printing lines at the source (including solvents used for cleanup operations associated with the letterpress printing lines) ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment.” SR at 31; *see* Prop. 218 at 114, Prop. 219 at 114.

***Subsection (b).*** The Agency proposes a new subsection (b) providing “that the requirements of Section 218/219.413(a)(2) shall not apply to up to 416.3 liters (100 gallons) per year of cleaning materials used on letterpress printing lines at a subject source.” SR at 31; *see* Prop. 218 at 114, Prop. 219 at 114.

***Subsection (c).*** The Agency proposes a new subsection (c) providing that, “on and after May 1, 2010, the recordkeeping and reporting requirements in Section 218/219.417 shall apply to all owners or operators of letterpress printing line(s).” SR at 32; *see* Prop. 218 at 114, Prop. 219 at 114.

**Subsection (d).** The Agency proposes a new subsection (d) providing that, “if a letterpress printing line at a source is or becomes subject to one or more of the limitations in Section 218/219.413, the letterpress printing lines at the source are always subject to the provisions of Subpart H.” SR at 32; *see* Prop. 218 at 114, Prop. 219 at 114.

**Section 218.413/219.413: Emission Limitations and Control Requirements for Letterpress Printing Lines.** The Agency proposes to add a new Section 218/219.413 establishing various requirements for letterpress printing lines. SR at 32; *see* Prop. 218 at 115-16, Prop. 219 at 115-16.

**Subsection (a).** The Agency proposes a new subsection (a)(1) providing in part that heatset web letterpress printing lines that meet the applicability requirements of Section 218/219.412(a)(1) shall maintain the air pressure in the dryer lower than the air pressure of the press room and install and operate an afterburner that reduces VOM emissions by 90-95 percent, depending on the date that the afterburner was first constructed at the subject source, or to a maximum afterburner exhaust outlet concentration of 20 mmpv (as carbon). SR at 32; *see* Prop. 218 at 115, Prop. 219 at 115.

In addition, the Agency proposes to require that “[s]uch printing lines shall also equip the afterburner with applicable monitoring equipment and operate the afterburner at all times when the printing line is in operation, except as provided in Section 218/219.107.” SR at 32; *see* Prop. 218 at 115, Prop. 219 at 115.

In proposed subsection (a)(2), the Agency proposes to provide that “no owner or operator of subject letterpress printing lines shall use cleaning solutions on such lines unless the VOM content of the as-used cleaning solution is less than or equal to 70 percent, by weight, or the VOM composite vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20 degrees Celsius.” SR at 32; *see* Prop. 218 at 115-16, Prop. 219 at 115-16.

In proposed subsection (a)(3), the Agency seeks to require that “[c]leaning materials must be kept, stored, and disposed of in closed containers, except when specifically in use.” SR at 32; *see* Prop. 218 at 116, Prop. 219 at 116.

**Subsection (b).** The Agency proposes a new subsection (b) providing “that heatset web letterpress printing lines may use a control device other than an afterburner if the control device meets the VOM emissions reduction requirements in subsection (a) and is approved by the Illinois EPA and USEPA as federally enforceable permit conditions.” SR at 33; *see* Prop. 218 at 116, Prop. 219 at 116.

**Section 218.415/219.415: Testing for Letterpress Printing Lines.** The Agency proposes to add a new section addressing testing requirements applicable to letterpress printing lines subject to Section 218/219.413. SR at 33-34; *see* Prop. 218 at 116-19, Prop. 219 at 116-19.

**Subsection (a).** In proposed subsection (a), the Agency seeks to require “that testing to demonstrate compliance with [Section] 218/219.413 shall be conducted at the expense of the owner or operator within 90 days of a request by the Illinois EPA, and the owner or operator shall notify the Illinois EPA 30 days in advance of conducting such testing.” SR at 33; *see* Prop. 218 at 116, Prop. 219 at 116. In its first motion to amend, the Agency responds to a request by industry representatives by seeking to amend this subsection to clarify when testing must be performed. Mot. Amend 1 at 21 (¶18).

**Subsection (b).** In its proposed subsection (b), the Agency proposes to describe “the methods and procedures in Section 218/219.105(d) and (f) that shall be used for testing to demonstrate compliance with the add-on control device requirements of Section 218/219.413(a)(1)(B) and (b)(1).” SR at 33; *see* Prop. 218 at 117-18, Prop. 219 at 117-18.

**Subsection (c).** The Agency proposes a new subsection (c) providing “that testing to demonstrate compliance with the VOM content limitations in Section 218/219.413(a)(2)(A) and to determine the VOM content of cleaning solvents, cleaning solutions, and inks shall be conducted using the applicable test methods and procedures in Section 218/219.105(a).” SR at 33; *see* Prop. 218 at 118, Prop. 219 at 118. The Agency also seeks to provide in subsection (c)(2) that “[t]he manufacturer’s specifications for VOM content for cleaning solvents and inks may be used if such specifications are based on results of tests conducted in accordance with Section 218/219.105(a).” SR at 33; *see* Prop. 218 at 118, Prop. 219 at 118.

In its first motion to amend, the Agency responds to a request by industry representatives by seeking to amend this subsection to clarify when testing must be performed. Mot. Amend 1 at 21 (¶18).

**Subsection (d).** The Agency proposes a new subsection (d) providing “that testing to demonstrate compliance with Section 218/219.413(b) shall be conducted as set forth in the owner or operator’s plan approved by the Illinois EPA and USEPA as federally enforceable permit conditions.” SR at 34; *see* Prop. 218 at 118, Prop. 219 at 118.

**Subsection (e).** The Agency proposes a new subsection (e) providing “that testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 218/219.110.” SR at 34; *see* Prop. 218 at 118-19, Prop. 219 at 118-19.

**Section 218.416/219.416: Monitoring Requirements for Letterpress Printing Lines.**

The Agency proposes to add a new section addressing monitoring of emissions from letterpress printing lines. *See* SR at 34, Prop. 218 at 119-20, Prop. 219 at 119-20.

**Subsection (a).** The Agency proposes a new subsection (a) providing “that, if an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line shall install, calibrate, maintain, and operate temperature monitoring devices with an accuracy of 3° C or 5° F on the afterburner in accordance with Section 218/219.105(d)(2) and in accordance with the manufacturer’s specifications.” SR at 34; *see* Prop. 218 at 119, Prop. 219

at 119. The Agency also seeks to require in proposed new subsection (a)(1) that monitoring must be “performed at all times when the afterburner is operating. . . .” Prop. 218 at 119, Prop. 219 at 119; *see* SR at 34. In subsection (a)(2), the Agency proposes to require that “owners or operators shall also install, calibrate, operate, and maintain in accordance with manufacturer’s specifications a continuous recorder on the temperature monitoring devices with at least the same accuracy as the temperature monitor.” SR at 34; *see* Prop. 218 at 119, Prop. 219 at 119.

**Subsection (b).** The Agency proposes a new subsection (b) providing “that if a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line shall install, maintain, calibrate, and operate such monitoring equipment as set forth in the owner or operator’s plan approved by the Illinois EPA and USEPA pursuant to Section 218/219.413(b).” SR at 34; *see* Prop. 218 at 119, Prop. 219 at 119.

**Subsection (c).** The Agency proposes a new subsection (c) setting “forth the monitoring requirements for owners or operators of letterpress printing lines relying on the VOM content of the cleaning solution to comply with Section 218/219.413(a)(2)(A), or relying on the vapor pressure of the cleaning solution to comply with Section 218/219(a)(2)(B).” SR at 35; *see* Prop. 218 at 119-20, Prop. 219 at 119-20.

**Section 218.417/219.417: Recordkeeping and Reporting for Letterpress Printing Lines.** The Agency proposes to add a new section addressing recordkeeping and reporting for letterpress printing lines. SR at 35; *see* Prop. 218 at 120-29, Prop. 219 at 120-30.

**Subsection (a).** The Agency proposes a new subsection (a) providing

that the owner or operator of a heatset web letterpress printing line exempt from any of the limitations of Section 218/219.413 because of the criteria in Section 218/219.412(a)(1) shall submit a certification to the Illinois EPA that includes a declaration that the source is exempt and calculations that demonstrate that the source’s total potential to emit VOM does not equal or exceed 25 tons per year. SR at 35; *see* Prop. 218 at 119, Prop. 219 at 120.

**Subsection (b).** The Agency proposes a new subsection (b) providing

that the owner or operator of a letterpress printing line exempt from any of the limitations of Section 218/219.413 because of the criteria in Section 218/219.412(a)(2) shall submit a certification to the Illinois EPA that includes a declaration that the source is exempt, calculations that demonstrate that combined emissions of VOM from all letterpress printing lines at the source never equal or exceed 6.8 kg/day (15 lbs/day), and a description and the results of all tests used to determine the VOM content of inks and cleaning solvents. SR at 35; *see* Prop. 218 at 120-23, Prop. 219 at 120-23.

In its proposed subsection (b)(1)(D), the Agency seeks to provide that, “as an alternative to the VOM emission calculations set forth in subsection (b)(1)(B), a source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM if it complies with material use limitations during



each calendar month.” SR at 35-36; *see* Prop. 218 at 122, Prop. 219 at 122. The Agency proposed language limiting the availability of this alternative to sources with only a single type of letterpress printing operations. SR at 35-36; *see* Prop. 218 at 122, Prop. 219 at 122. The Agency also proposed to require that, “[i]f a source exceeds the material use limitation in any given month, the source shall complete emissions calculations pursuant to subsection (b)(1)(B) within 15 days of the end of that month.” SR at 36; *see* Prop. 218 at 122, Prop. 219 at 122. The Agency also proposed that any source exceeding the limitation for six consecutive months was no longer eligible to rely upon the material use alternative. SR at 36; *see* Prop. 218 at 122, Prop. 219 at 122.

In its first motion to amend, the Agency proposed to change the material use thresholds for letterpress printing lines. Mot. Amend 1 at 22 (¶19). The Agency states that “USEPA previously recommended that material use thresholds for lithographic printing lines be conservatively based on 50 percent of the pound per day applicability threshold. USEPA has now determined that a 90 percent emissions equivalency level is acceptable for both lithographic and letterpress printing operations.” *Id.* Accordingly, the Agency seeks to amend proposed subsections (b)(1)(D)(i) and (b)(1)(D)(ii) to reflect this 90 percent equivalency. *Id.*

In proposed subsection (b)(2), the Agency sought to require that subject sources shall notify the Agency if the combined emissions of VOM from all letterpress printing lines at the source ever equal or exceed 6.8 kg/day (15 lbs/day).” SR at 35; *see* Prop. 218 at 123, Prop. 219 at 123. In its first motion to amend, the Agency proposed to amend subsection (b)(2) “by removing the requirement that a source include in its notification to the Illinois EPA calculations showing an exceedance of the applicability threshold.” Mot. Amend 1 at 22-23 (¶20).

**Subsection (c).** The Agency proposes a new subsection (c) providing “that, unless utilizing the material use alternative, the owner or operator of a letterpress printing line subject to the requirements in subsection (a) or (b) of this Section shall collect and record either the specified standard recordkeeping information or the specified purchase and inventory recordkeeping information.” SR at 36; *see* Prop. 218 at 123-24, Prop. 219 at 123-25.

**Subsection (d).** The Agency proposes a new subsection (d)(1) providing

that the owner or operator of a heatset web letterpress printing line subject to Section 218/219.413(a)(1)(B) or (b)(1) of this Subpart shall submit a certification to the Illinois EPA that includes identification of each heatset web letterpress printing line at the source, a declaration that each such line is in compliance with Section 218/219.413(a)(1) or (b), the type of afterburner or other approved control device being used and the date that such device was first constructed at the subject source, the control requirements with which the printing line is complying, the results of all tests and calculations necessary to demonstrate compliance, and a declaration that the required monitoring equipment has been properly installed and calibrated. SR at 36; *see* Prop. 218 at 125-27, Prop. 219 at 125-27.

Proposed subsection (d)(2) seeks to require that,

if the testing of an afterburner or other approved control device is conducted pursuant to Section 218/219.415(b), the owner or operator shall submit a copy of all test results to Illinois EPA, as well as a certification that includes a declaration that all necessary tests and calculations have been performed, a statement whether the printing line is in compliance with Section 218/219.413(a)(1)(B) or (b)(1), and the operating parameters of the afterburner or other approved control device during testing. SR at 37; *see* Prop. 218 at 125-26, Prop. 219 at 126.

The subsection also proposes that an owner or operator changing its method of compliance “must certify compliance for the new method of compliance and perform all tests and calculations necessary to demonstrate compliance with such method.” SR at 37; *see* Prop. 218 at 126-27, Prop. 219 at 127.

Subsection (d)(3) also proposes to require that an owner or operator “collect and record specified information for each heatset web letterpress printing line and notify the Illinois EPA of any violation of Section 218/219.413(a)(1)(B) or (b)(1).” SR at 36; *see* Prop. 218 at 125-27, Prop. 219 at 125-27.

**Subsection (e).** The Agency proposes a new subsection (e) establishing various recordkeeping and reporting requirements. *See* SR at 37, Prop. 218 at 127-29, Prop. 219 at 127-30. The proposed provision “provides that the owner or operator of a letterpress printing line shall certify to the Illinois EPA that all cleaning solutions, other than those excluded pursuant to Section 218.412(b), and the handling of all cleaning materials will be in compliance with Section 218/219.413(a)(2)(A) or (a)(2)(B) and (a)(3).” SR at 37; *see* Prop. 218 at 127, Prop. 219 at 127. The proposed certification must also include specific information regarding cleaning operations at the subject printing line. SR at 37; *see* Prop. 218 at 127, Prop. 219 at 127. In addition, “[t]he owner or operator shall collect and record specified information for each solution used on each letterpress printing line and notify the Illinois EPA of any violation of Section 218/219.413.” SR at 37; *see* Prop. 218 at 127-29, Prop. 219 at 127-30.

In its first motion to amend, the Agency responded to comment by industry representatives by proposing to amend subsections 218/219(e)(2)(B) and (e)(2)(C) “by specifying that, for cleaning solutions used as-purchased, sources may use manufacturer’s specifications to determine VOM content and VOM composite partial vapor pressure.” Mot. Amend 1 at 23-25 (¶21).

**Subsection (f).** The Agency proposed a new subsection (f) providing “that the owner or operator of a printing line shall maintain all records required by this Section for a minimum period of three years and shall make all records available to the Agency upon request.” SR at 38; *see* Prop. 218 at 129, Prop. 219 at 130.

### **SUMMARY OF POST-HEARING COMMENT (PC 1)**

As noted above under “Procedural History,” the Board on December 28, 2009, received a timely post-hearing comment from Mr. Bruce Meerman, Senior Environmental Consultant, Mostardi Platt Environmental. *See* PC 1. Mr. Meerman states that he “represents a heatset offset

lithographic printer who recently installed a replacement catalytic oxidizer in three (3) older heatset lithographic printing lines.” *Id.* at 1. He suggests that permits applicable to those lines allow the control devices to operate with a minimum 90% destruction efficiency. *See id.* His comments address two subsections of the Agency’s proposed regulations, each of which is addressed in the following subsections of the opinion.

**Section 218/219.407(a)(1)(C)**

Mr. Meerman states that Illinois has proposed to incorporate the requirements of the CTG for lithographic and letterpress printing in a specific fashion. *See* PC 1 at 1. He requests that the Board clarify this proposed language to show whether it addresses “the printing line, the afterburner, or both.” PC 1 at 1. He also requests that the Board clarify “that it is the installation/operation date of the unit that determines what percent efficiency must be achieved, and not that all control devices must perform at a higher destruction efficiency after May 1, 2010.” *Id.* at 1-2.

The Board notes that the Agency’s proposed Section 218/219.407(a)(1)(C) requires the installation and operation of an afterburner “so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced as follows: . . . [o]n and after May 1, 2010, by at least 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010; by at least 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or to a maximum afterburner exhaust outlet concentration of 20 mmpv (as carbon) . . .” Prop. 218 at 86-87, Prop. 219 at 86.

The Board concludes that the rulemaking proposal submitted to the Board and cited in the preceding paragraph satisfactorily addresses the two requests for clarification. However, the Board invites comment during the 45-day first-notice comment period from any participant who wishes to address either of those matters.

**Section 218/219.407(b)**

Existing Section 218/219.407(b) addresses the use of a control device other than an afterburner by the owner or operator of a heatset web offset lithographic printing line. 35 Ill. Adm. Code 218.407(b), 219.407(b). Mr. Meerman states that

[c]urrent heatset lithographic presses are designed with an integrated drying oven/thermal oxidizer control. These units easily achieve the proposed 95% destruction rate and are cost effective when purchasing new heatset presses. Many existing older units, however, require stand alone control devices. They are not engineered for optimized (lower) dryer air flow rates. As control device operation costs (natural gas usage) are high for these older presses[,] it is more cost effective to duct emissions to catalytic oxidizers for control. Catalyst efficiency may slightly reduce over time[,] and we wish to ensure that it is clear in the rules that these units will always be able to comply with the 90 destruction minimum. PC 1 at 2.

Mr. Meerman first seeks clarification “whether it is the effective operation date of the printing line or the control device, or both in relation to the May 1, 2010 control efficiency requirement.” *Id.* Second, if the control device is the determining factor, he seeks clarification “that all existing units maintain their status (90% destruction) through all equipment maintenance and repair, including replacement of catalyst.” *Id.*

The Board notes that the Agency’s proposed Section 218/219.407(b)(1)(B) provides that

[a]n owner or operator of a heatset web offset lithographic printing line subject to the requirements of subsection (a)(1)(C) may use a control device other than an afterburner, if . . . the control device reduces VOM emissions from the press dryer exhaust(s) as follows:

- B) [o]n and after May 1, 2010:
- i) By at least 90 percent, by weight, for control devices first constructed at the source prior to January 1, 2010;
  - ii) By at least 95 percent, by weight, for control devices first constructed at the source on or after January 1, 2010; or
  - iii) To a maximum control device exhaust outlet concentration of 20 ppmv (as carbon). Prop. 218 at 88, Prop. 219 at 87-88.

The Board concludes that the rulemaking proposal submitted to the Board and cited in the preceding paragraph satisfactorily address the two requests for clarification. However, the Board invites comment during the 45-day first-notice comment period from any participant who wishes to address either of those matters.

### **AFFECTED SOURCES AND PROJECTED EMISSIONS REDUCTIONS**

The Agency states that its proposed regulations apply only within the Chicago and Metro East regions, the state’s two areas designated as nonattainment for the eight-hour ozone NAAQS. SR at 9, citing 40 C.F.R. 81.314. Specifically, the Agency states that, within those two areas, the regulations “are generally expected to affect both new and existing sources that are covered by a Group II CTG” and that meet the proposed applicability criteria. SR at 9. In Appendix B to its TSD, the Agency lists 136 potentially affected sources itemized by category and then by NAA within those categories. TSD at 25-28 (Appendix B).

The Board addresses the record with regard to potentially affected sources and projected emission reductions on a category-by-category basis in the following subsections.

#### **Industrial Cleaning Solvents**

The Agency notes USEPA’s estimate that 130 sources in Illinois’ two nonattainment areas emit a total of 15 PPD or more of VOM from cleaning operations at the source. TSD at 20

(¶6.4); *see* Prop. 218 at 4 (proposed Section 218.187(a)(1) addressing applicability). Responding to a question at the first hearing, the Agency indicated that its proposed regulations apply to “anybody who uses this amount of industrial cleaning solvents” and not only to the operations included in Group II Consumer and Commercial Product categories. Tr.1 at 10. The Agency argues that, because it does not generally seek specific information on solvent use and because that use may not be subject to a current permit, “there was no good way to make an estimate as to who might be affected. . . .” *Id.* at 11. Accordingly, the Agency states that its “Appendix B does not list specific sources that are potentially affected by this rulemaking.” *Id.*; *see* TSD at 25-28 (Appendix B). The Agency stated that it intends to communicate with small business owners, industry representatives, and DCEO through the process of considering and implementing these proposed rules. Tr.1 at 11.

The Agency states that baseline emissions from the 130 sources noted by USEPA are estimated to be 2293 MG/yr (2528 tpy) of VOM. TSD at 20. The Agency further states that this estimate includes “degreasing operations that are already impacted by existing state regulations and will not gain any further reductions.” *Id.* The Agency argues that “[i]t is not reasonably practicable to estimate emission reductions for the other impacted sources under the industrial clean-up solvent rule, as any source in either NAA that uses cleaning solvent is potentially affected, depending on the source’s usage level.” TSD at 20-21; *see* Tr.1 at 9-11. The Agency also claims that potentially affected sources may already be using solutions that comply with the proposed regulations. *Id.* at 21. Accordingly, “the Agency believes that the environment will see actual VOM emission reductions due to these proposed regulations, but calculation of such emission reductions cannot be accomplished without detailed information from every affected source.” TSD at 21.

### **Flat Wood Paneling Coatings**

The Agency’s search of the 2005 source inventory maintained by its Bureau of Air indicates that four sources, all in the Chicago NAA, will become subject to the proposed flat wood paneling coating regulations. TSD at 21 (§6.5). The Agency states that “[o]ne of these four sources would appear to fall below the proposed applicability threshold” and that “[t]he other three total 0.09 TPD of VOM emissions.” *Id.* The Agency claims that the CTG projects VOM emission reductions averaging 60 percent from interior paneling and tileboard manufacturing. *Id.* Stating that the Illinois sources appear to fall within these two categories, the Agency “estimates a VOM reduction of 0.05 TPD in the Chicago NAA. . . .” *Id.*

### **Flexible Packaging Printing Lines**

The Agency stresses difficulties in estimating emission reductions in this category. First, the Agency states that “the Illinois source database does not generally specify the type of substrate being used by a flexographic or rotogravure printing operation.” TSD at 20 (§6.3). The Agency further states that the data also do not “specify the date of original installation of the printing press or the associated control device.” *Id.* Accordingly, the Agency lists as a potentially affected source each existing flexographic or rotogravure printing facility in the Illinois inventory and exceeding the proposed applicability threshold. *Id.*; *see id.* at 27-28 (Appendix B).

The Agency emphasizes, however, that “all sources but one using flexographic or rotogravure printing of any type are already achieving greater control efficiency than required by the proposed regulation.” TSD at 20. The Agency states that the single remaining source “is required by its permit to achieve 60 percent control efficiency, but will now need to achieve 65 percent.” *Id.* The Agency claims that this represents a reduction of 0.03 TPD in permitted emissions, “but a 0.01 TPD reduction according to emissions information in the inventory.” *Id.*

The Agency expects negligible emission reductions from proposed new ink limits. TSD at 20. The Agency states that, “[w]hile the inventory does not provide information regarding the use of compliant inks, it has been the Agency’s experience that sources printing on flexible packaging have had difficulty with the use of compliant VOM inks on such substrates.” *Id.* The Agency reports that “[s]ources either relied on add-on controls or switched to water-based inks that should meet the newly proposed requirements as well as the existing ones.” *Id.*

Regarding proposed work practice standards for cleaning materials, the Agency argues that they “do not lend themselves to a calculation of emission reductions.” TSD at 20. The Agency claims that actual VOM emission reductions will result from requirements such as “storing of cleaning materials and used shop towels in closed containers, as well as conveying cleaning materials in closed containers or pipes. . . .” *Id.* The Agency argues, however, that “calculation of such emission reductions cannot be accomplished without detailed information from every affected source -- both before and after such changes are made.” *Id.*

### **Lithographic Printing Lines**

The Agency first states that it “does not expect any additional [emission] reductions from increasing the required control efficiency for heatset web lithographic printers from 90 to 95 percent, because that change will not affect existing control devices.” TSD at 18 (§6.1). The Agency does expect “some small VOM reductions related to the addition of fountain and cleaning solution requirements for sources with 15 PPD or more of emissions.” *Id.* The Agency claims that it is difficult to estimate these reductions because it is not possible to identify sources that may be excluded from the proposed requirements. *Id.* The Agency elaborates that its source inventory “does not track information such as the number of gallons of cleaning solution used, the size of sheet-fed presses, or the fountain solution reservoir volume. . . .” *Id.*

The Agency’s search of the 2005 source inventory maintained by its Bureau of Air indicates that 98 lithographic printing sources in the Chicago NAA and three in the Metro East NAA have VOM emission over 15 PPD. TSD at 18. The Agency reports that 66 of the sources in the Chicago NAA and all three of the sources in the Metro East NAA emit less than 100 PPD and are potentially affected by the proposed regulations. *Id.*

For these potentially affected sources, the Agency estimated potential emission reductions attributable to reformulation of fountain solutions at between 25% and 90% for smaller sources. TSD at 19. Because this estimate is based on a 1993 draft CTG, and because the current CTG refers to steps reducing the VOM content of fountain solutions, the Agency relied on the 25% estimate in calculating reductions. *Id.* The Agency argues that “[c]leaning

solutions can be calculated as a straight 30% reduction, since the regulation requires reformulation such that they cannot contain more than 70% VOM. “ *Id.* With regard to cleaning solutions emissions, the Agency claims that they “make up a lower percentage of emissions compared to fountain solutions, ranging up to approximately 50% at certain facilities.” *Id.* The Agency argues that, “[a]ssuming that almost 50% of non-ink emissions come from cleaning solutions, which have 30% reduction, it is safe to use a 25% overall emission reduction to cover all VOM originating from the source.” *Id.*

The Agency states that total VOM emissions from the 66 potentially affected sources in the Chicago NAA equal 1.455 TPD. TSD at 19. Accordingly, a 25% reduction represents 0.36 TPD of VOM. *Id.* The Agency further state that, in the Metro East NAA, a 25% reduction from total emissions of 0.0295 TPD represents a reduction of 0.007 TPD. *Id.*

### **Letterpress Printing**

Because the Agency believes that there are no heatset web letterpress printing operations in the two NAAs, it expects no emission reductions from add-on controls for this category. TSD at 19 (§6.2). The Agency’s search of the 2005 source inventory maintained by its Bureau of Air indicates that there are two sources in the Chicago NAA using letterpress printing. *Id.* The Agency states that “[o]nly one of these sources appears to emit more than 15 PPD from such operations, with less than 0.02 TPD of VOM, including emissions from the letterpress as well as other printing operations.” *Id.* The Agency argues that, “[e]ven if all of the emissions originated from letterpress cleaning solutions, which are to be reduced by 30 percent, the resulting reduction would be 0.005 TPD. *Id.* Accordingly, the Agency expects only “negligible” emission reduction from proposed regulations for this category. *Id.*

## **TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS**

### **Technical Feasibility**

Particularly in its Technical Support Document, the Agency addresses various approaches to controlling VOM emissions from Group II product categories. *See* TSD at 7-12 (Technical Feasibility of Controls). The Agency argues that “[a]ffected sources can meet the requirements in the proposed amendments through a number of readily available control techniques.” SR at 9. In the subsections below, the Board addresses the record on the issue of the technical feasibility of those techniques.

### **Industrial Cleaning Solvents**

The Agency notes the recommendation of the CTG that sources emitting more than 15 pounds per day of VOM through industrial cleaning comply with various requirements. TSD at 10 (§3.4), citing Control Techniques Guidelines: Industrial Cleaning Solvents, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency states that the various cleaning activities “use a multitude of different solvents with different styles of applications.” TSD at 10. The Agency proposes regulations covering “a wide range of products that remove contaminants from parts, products, tools,

machinery, and other work production areas.” *Id.* The Agency stresses work practices, solvent substitution, and controls as the chief techniques for reducing VOM emissions in this category. *Id.* at 10-11; SR at 10.

**Work Practices.** The Agency indicates that solvent management practices can reduce VOM emissions. TSD at 10. The Agency states that these practices “include keeping solvent containers and used applicators covered; properly storing and disposing of spent solvents and used cleaning rags; minimizing air circulation around all cleaning operations; and implementing equipment practices that reduce emission, *e.g.*, leak detection and repair practices.” *Id.*; *see* Prop. 218 at 9 (proposed Section 218.187(d)), Prop. 219 at 8 (proposed Section 219.187(d)).

**Alternate Control.** The Agency states that add-on controls, equipment modification, and changing cleaning methods all can reduce VOM emissions. TSD at 11. The Agency further states that “[t]he CTG recommends an overall control efficiency of 85 percent reduction in emissions of VOM, which is reflected in the proposed rule.” *Id.*; *see* Prop. 218 at 8 (proposed Section 218.187(b)(3)), Prop. 219 at 8 (proposed Section 219.187(b)(3)).

**Solvent Substitution.** The Agency notes that the CTG recommends the use of low vapor pressure solvents because “the slower evaporation reduces the amount of VOM released into the atmosphere.” TSD at 11. The Agency states that its proposal reflects the recommended limit of 8 mm Hg at 20 degrees Celsius in place of 50 grams of VOM per liter of cleaning material. *Id.*; *see* Prop. 218 at 8 (proposed Section 218.187(b)(2)), Prop. 219 at 8 (proposed Section 219.187(b)(2)).

The Agency claims that sources can also reduce VOM emissions with the use of low-VOM or no-VOM solvents. TSD at 10. The Agency notes that “[t]he CTG recommends a content limit of 50 grams VOM per liter (0.42 lb/gal) of cleaning material for those industries that are not already covered, or to be covered, by a CTG.” *Id.*, citing Control Techniques Guidelines: Industrial Cleaning Solvents, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. Specifically, the Agency states that the CTG proposes to exclude “certain categories from the cleaning regulations, as these categories already have or will have their own recommended work practices and limitations.” TSD at 11. The Agency further states that

[t]hese categories include coating operations for aerospace, wood furniture, flat wood paneling, large appliance, metal furniture, plastic parts, paper film and foil, miscellaneous metal parts, auto and light-duty truck assembly, and shipbuilding and repair; flexible packaging printing materials; lithographic printing materials; letterpress printing materials; fiberglass boat manufacturing materials; and miscellaneous industrial adhesives.” *Id.*, *see* Prop. 218 at 5-6 (proposed Section 218.187(a)(2)(B)), Prop. 219 at 4-5 (proposed Section 219.187(a)(2)(B)).

The Agency also states that, as a result of discussions with industry, other states, and USEPA, it proposes to add additional “exemptions and higher VOM content limits for certain specific cleaning activities.” TSD at 10. The Agency suggests that it offers these additional exemptions



for categories that may not be able easily to meet proposed VOM content limits. *Id.* at 11. These exemptions

include electrical and electronic components; precision optics; numismatic dies; stripping of cured inks, coatings, and adhesives; cleaning of resin, coating, ink, and adhesive mixing, molding, and application equipment; research and development laboratories; medical device or pharmaceutical manufacturing; and performance or quality assurance testing of coatings, inks, or adhesives. Further exclusion recommendation include cleaning of paper-based gaskets and clutch assemblies; cleaning of adhesive application equipment used for thin metal laminating; touch-up cleaning on circuit boards; cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery product using less than three gallons per day of ethyl acetate; cleaning of application equipment used to apply coatings on satellites and radiation effect coatings; cleaning of application equipment used to apply solvent-borne fluoropolymer coatings; cleaning of ultraviolet or electron beam adhesive application; and cleaning of electrical cables. *Id.* at 11-12; *see* Prop. 218 at 6-7 (proposed Section 218.187(a)(2)(C)), Prop. 219 at 5-6 (proposed Section 219.187(a)(2)(C)).

### **Flat Wood Paneling Coating Lines**

The Agency states that the CTG refers to three options for controlling VOM emissions from flat wood paneling coating operations: reformulation, add-on controls, or work practices. TSD at 12 (§3.5); SR at 10.

**Material Reformulation.** The Agency states that reformulation involves replacing high-VOM coatings with low-VOM coatings. TSD at 12. Citing the CTG, the Agency argues that “water-based coatings ‘are generally available’ and ‘can lower [VOM] emissions greatly, and most coatings operations are capable of converting to waterborne coatings.’” *Id.*, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency further argues that sources can reformulate by using “coatings that emit almost zero VOM and are cured through the use of ultraviolet light or an electron beam.” TSD at 12. The Agency acknowledges that “[t]he use of such systems are more limited than those for waterbased coatings, but they are available.” *Id.*

**Add-On Controls.** The Agency claims that, when a source uses high-VOM coatings, it can use add-on controls. TSD at 12. Citing its experience with a range of coating operations, the Agency agrees with the CTG that “an overall control and capture efficiency of 90 percent is a widely-accepted and readily available technique.” *Id.*, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

**Work Practices.** The Agency notes that

[t]he CTG recommends specific work practice requirements for flat wood paneling coating operations: storing all [VOM] coatings, thinners, and cleaning materials in close containers, minimizing spills of [VOM] containing coatings, thinners, cleaning up spills immediately, conveying any coatings, thinners, and cleaning materials in closed containers or pipes, closing mixing vessels which contain [VOM] coatings and other materials except when specifically in use, and minimizing emissions of [VOM] during cleaning of storage, mixing, and conveying equipment.” TSD at 12, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

The Agency states that Illinois has already adopted some of these requirements through regulations for wood furniture coaters. TSD at 12. The Agency further states that its proposal will apply those requirements and other specific requirements to flat wood paneling coaters. *Id.*

### **Flexible Packaging Printing Lines**

The Agency states that VOM emissions from flexible package printing operations stem largely from evaporation of inks, coatings, and adhesives, and from the use of cleaning materials. TSD at 9 (§3.3). The Agency argues that these emissions can be controlled through material reformulation, add-on controls, and work practices. *Id.* at 9-10; *see* SR at 10.

**Material Reformulation.** This control substitutes high-VOM inks, coatings, and adhesives with low-VOM versions of those materials. TSD at 9. Citing the CTG, the Agency argues that “such reformulation ‘has been achieved by any facilities in the packaging rotogravure and flexographic printing industries.’” *Id.*, citing Control Techniques Guidelines for Flexible Package Printing, United State Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency acknowledges that “[w]hether a particular facility is able to use such reformulated material depends upon their specific activities, including the substrate(s) being used.” TSD at 9.

**Add-On Controls.** The Agency states that all flexible packaging printers can use add-on controls. TSD at 9. The Agency argues that “[t]he most common control devices used by these sources are thermal oxidizers, catalytic oxidizers, and carbon adsorbers, with adsorbers probably being the least-used of the three.” *Id.* The Agency agrees with the CTG that “[t]oday, these control devices can achieve at least 95 percent control device efficiency.” *Id.*, citing Control Techniques Guidelines for Flexible Package Printing, United State Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

The Agency also describes capture systems, which collect air containing VOM “so it may be destroyed or reclaimed by the control device. . . .” TSD at 9. The Agency notes that, “[w]hile new presses may be able to obtain as high as 100 percent capture if designed properly, older presses were not necessarily constructed with emissions capture in mind.” *Id.* The Agency proposes a tiered approach to capture efficiency based on the construction date of the printing line and the control device. *Id.*; *see* Prop. 218 at 63-64 (proposed Section 218.401(c)(3)), Prop. 219. at 62 (proposed Section 219.401(c)(3)).

**Work Practices.** The Agency notes that the CTG “recommends work practice requirements as the best means to control emissions from cleaning operations at flexible package printing sources.” TSD at 10. The Agency lists some of these practices: “keeping solvent containers closed except when filling, draining or conducting cleaning operations, keeping used shop towels in closed containers, and conveying cleaning materials from one location to another in closed containers or pipes.” *Id.*, citing Control Techniques Guidelines for Flexible Package Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

### **Lithographic Printing Lines**

The Agency addresses three options for regulating VOM emissions from lithographic printing lines: add-on controls, fountain solution reformulation and process modification, and material reformulation or substitution for cleaning solutions. TSD at 7-8 (§3.1); *see* SR at 10.

**Add-On Controls.** The Agency states that add-on controls apply only to heatset web offset lithographic printing and not to non-heatset or sheet-fed lithographic printing. TSD at 7. The Agency further states that these add-on controls fall into two broad categories: combustion control devices “designed to destroy VOMs in the vent stream prior to atmospheric discharge” and recovery devices that “limit VOM emissions by recovering material for reuse.” *Id.* The Agency indicates that heatset web offset lithographic printers use three add-on controls: thermal afterburners, catalytic afterburners, and condenser filter systems. *Id.* The Agency’s experience leads it to conclude “that the field is dominated by thermal and catalytic afterburners, which can often achieve 98 percent or greater VOM removal.” *Id.* The Agency also reports that condenser filter systems have been designed specifically for heatset web offset printers with efficiency as high as 97 percent removal. *Id.*

**Fountain Solution Reformulation and Process Modifications.** The Agency argues that “[a] significant portion of VOM emissions from lithographic printing can be ascribed to evaporation from fountain solutions.” TSD at 8. The Agency states that substitutes reduce or replace alcohol in fountain solutions. *Id.* The Agency further states that the substitutes have lower volatility and reduce emissions. *Id.*

The Agency characterizes process modifications as “changes in operational methods or equipment resulting in improved VOM control.” TSD at 8. The Agency names cooling fountain solution to minimize evaporation as one process modification that reduces VOM emissions. *Id.* The Agency claims that the use of refrigerated circulators to cool fountain solution “has been shown to reduce consumption of alcohol in the solution by as much as 44 percent.” *Id.* Although process modification may involve retrofitting or replacing existing equipment, the Agency “does not expect retrofitting or replacement to be an issue with this rulemaking.” *Id.*

**Material Reformulation or Substitution for Cleaning Solutions.** The Agency describes two reformulations to reduce VOM emissions from cleaning solutions. First, sources can use solutions containing a smaller amount of VOM. TSD at 8. Current Illinois regulations now limit these solutions to no more than 30 percent VOM by weight. *Id.*; *see* 35 Ill. Adm. Code

218.407(a)(4)(A)(i); 35 Ill. Adm. Code 219.407(a)(4)(A)(i). The Agency reports that, “[w]hile no problems with this limit have been reported to Agency personnel in Illinois, there have apparently been complaints on a national level.” TSD at 8. The Agency notes that “the CTG now recommends limiting such solutions to 70 percent VOM.” *Id.*, citing Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency proposes to apply “this higher limit for sources between 15 and 100 pounds per day (PPD), with the previous limit remaining in effect for larger sources.” TSD at 8; *see* Prop. 218 at 88 (proposed Section 218.407(a)(4)(A)); Prop. 219 at 87 (proposed Section 219.407(a)(4)(A)).

Second, the Agency reports that sources can rely on cleaning solution with a low vapor pressure. TSD at 8. Citing the CTG, the Agency states that “[c]leaning solutions with [VOM] composite vapor pressure less than 10 millimeters of mercury (mm Hg) at 20°C have been used successfully by many printers for blanket washing and other cleaning activities. *Id.*, citing Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency further states that, before Illinois adopted its previous lithographic printing rules, USEPA determined that the use of such materials results in emission reductions comparable “to using cleaning materials that contain less than 30 weight percent VOM.” TSD at 8. Because the Agency believes that sources now use these materials without difficulty, it proposes not to amend the limit but to apply it to smaller sources. *Id.*; *see* Prop. 218 at 79 (proposed Section 218.405(c)(3)(C)); Prop. 219 at 78 (proposed Section 219.405(c)(3)(C)).

### **Letterpress Printing**

The Agency states that the sources of VOM emissions from letterpress printing are similar to those for lithographic printing, except “that letterpress operations do not use a fountain solution.” TSD at 9; SR at 10. The Agency further states that “letterpress printing presses are often operated at the same source as lithographic printing[,] and many of the control options for letterpress printing are the same as the control options for lithographic printing,” particularly with regard to cleaning solutions. TSD at 9.

Arguing that “letterpress operations have never been specifically regulated in Illinois before, the Agency is proposing to use the 70 percent VOM content limit for all subject letterpress units.” TSD at 9; *see* Prop. 218 at 115 (proposed Section 218.413(a)(2)), Prop. 219 at 115-16 (proposed Section 219.413(a)(2)). The Agency indicates on the basis of communication with industry representatives “that Illinois does not currently contain any heatset web letterpress operations in either the Chicago or Metro-East NAA. . . .” TSD at 9. The Agency argues, however, that “the regulation is necessary and technically feasible should a new such operation locate in one of the NAAs.” *Id.*

### **Economic Reasonableness**

In its Technical Support Document, the Agency addresses the economic reasonableness of various approaches to controlling VOM emissions from Group II product categories. *See*

TSD at 13-15. The Agency argues that the control techniques described above “are economically reasonable, particularly as many of the techniques are already widely used by the affected industries.” SR at 10. In the subsections below, the Board addresses the record on the issue of the economic reasonableness of those techniques.

### **Industrial Cleaning Solvents**

The Agency cites USEPA’s estimate that the proposed regulation would affect 130 Illinois sources with baseline VOM emissions of 2528 tons per year. TSD at 14 (§4.4) (referring to 2002 National Emissions Inventory database). The Agency also notes USEPA’s determination that “the cost effectiveness of meeting the 50 grams of VOM per liter of cleaning material limit for a parts cleaner at \$1664/ton based on a study provided by the California Bay Area Air Quality Management District.” TSD at 14. The Agency indicates that sources switching from high-VOM content solvents to low-VOM content solvents may realize savings of \$1325/ton because of lower disposal costs. *Id.*

### **Flat Wood Paneling Coating Lines**

The Agency notes that USEPA relied upon data from the South Coast Air Quality Management District of California to estimate cost effectiveness “of between \$1,900 and \$2,600 per ton of VOM reduced (in 2005 dollars).” TSD at 14 (§4.5). The Agency also cites the CTG to indicate that Illinois sources subject to the proposed rule could incur costs to make their coatings compliant. *Id.* at 14-15, citing Control Techniques Guidelines for Flat Wood Paneling Coatings, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency concludes that “the only significant cost is expected to be reformulation of coatings.” TSD at 15.

### **Flexible Packaging Printing Lines**

The Agency cites the CTG to claim that “[m]any facilities located in ozone nonattainment areas are already meeting the control levels being recommended in this CTG.” TSD at 14 (§4.3), citing Control Techniques Guidelines for Flexible Package Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency argues that

this proposal does not expand the number of sources that will be subject to the ink or control device portions of the flexible packaging rotogravure and flexographic printing regulations. It is expected that those sources currently able to use compliant inks and coatings will similarly be able to make use of inks and coatings meeting the new compliance limit, while those using add-on control devices will continue to do so as well. As such, the Illinois EPA expects that there will not be any additional add-on control costs for subject facilities. TSD at 14.

The Agency cites the CTG to state that sources installing add-on control devices will face costs that vary based on operating factors. *Id.* The Agency cites the CTG to estimate that “a press

exhausting approximately 5,800 cubic feet per minute, operating 2000 hours per year, and achieving 70 percent capture efficiency’ would have a cost of between \$1,300 and \$2,800 per ton of VOM removed.” *Id.*, citing Control Techniques Guidelines for Flexible Package Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006. The Agency argues that factors including more operating hours would lower the cost per ton of VOM removed. TSD at 14.

Addressing the cleaning provisions of its proposal, the Agency expects “minimal” costs for sources becoming subject to those regulations. TSD at 14. The Agency argues that “some sources may see an overall costs savings as less cleaning solution is necessary.” *Id.*

### **Lithographic Printing Lines**

The Agency argues that “[t]he largest cost factor for lithographic printing -- add-on controls - is applicable to heatset web lithographic operations only. Since the Agency’s proposal does not increase the number of sources for which this requirement is applicable, there is no foreseen additional cost due to add-on controls for existing sources.” TSD at 13 (§4.1). Although the Agency acknowledges that new sources will be subject to a higher control efficiency, it expects new control devices to achieve that efficiency. *Id.* The Agency argues that “no additional cost is expected for this reason either.” *Id.*

The Agency states that its proposal could result in costs for newly-regulated sources emitting between 15 and 100 pounds per day of VOM. TSD at 13. The Agency reports that “USEPA estimated the cost for cleaning material reformulation at \$855 per ton of VOM removed (in 2005 dollars).” *Id.*, citing Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

The Agency notes that USEPA projects a costs savings with fountain solutions because of reduced alcohol use. TSD at 13. The Agency indicates that, although USEPA has not specifically estimated the amount of these savings, it notes that “the TSD for the Illinois lithographic printing rule in 1994 put this savings at \$920 per ton. *Id.* The Agency explains that, “while alcohol substitutes are more expensive, the cost is reduced because they are used in lower quantities.” *Id.*, citing Technical Support Document for Controlling VOM Emissions from Lithographic Printing Operations, Illinois Environmental Protection Agency, October 1994.

### **Letterpress Printing**

The Agency cites the CTG to state that,

[b]ecause of the similarities between offset lithographic printing and letterpress printing in terms of the nature of the processes at issue, the sources of [VOM] emissions and available control approaches, it is reasonable to assume that the cost-effectiveness estimates . . . for control of [VOM] from heatset inks and control of [VOM] from cleaning materials apply equally to the letterpress printing industry. TSD at 13 (§4.2), citing Control Techniques Guidelines for Offset

lithographic Printing and Letterpress Printing, United States Environmental Protection Agency, Office of Air Quality Planning and Standards, September 2006.

The Agency acknowledges that, because Illinois does not now regulate heatset web letterpress printing operations, “the reasoning behind the zero cost estimate for heatset web lithographic printing” does not apply to letterpress printing. TSD at 13. The Agency notes the CTG’s estimate of \$2,010 per ton of VOM removed in 2005 dollars as the cost-effectiveness for this category. *Id.* However, the Agency emphasizes that there are not now any heatset web letterpress operations in either of the Illinois NAAs. *Id.*

### **Summary and Findings**

Although the Board in a letter dated August 6, 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 8-9.

In his pre-filed testimony on behalf of the Agency, Mr. Bloomberg states that “[t]he Agency agrees with USEPA that all of the proposed changes are technically feasible and economically reasonable.” Bloomberg Test. at 8. No participant has offered evidence or arguments rebutting this position. Having reviewed the record on the issues of feasibility and reasonableness, the Board finds it that the Agency’s proposal, as amended by two motions to amend, is both technically feasible and economically reasonable.

### **CONCLUSION**

The Board proposes for first notice amendments to its regulations governing VOM emissions in Parts 211, 218 and 219 (35 Ill. Adm. Code 211, 218, 219). Substantively, the Board is adopting the Agency’s proposal including changes reflected in two Agency motions to amend granted by the Board. *See* Mot. Amend 1, Mot. Amend 2.

Publication of the proposed amendment in the *Illinois Register* will start a period of at least 45 days during which any person may file public comments with the Clerk of the Board at the address provided above in this opinion. As noted above, persons may also file comments electronically through COOL at [www.ipcb.state.il.us](http://www.ipcb.state.il.us).

### **ORDER**

The Board directs the Clerk to cause first-notice publication of the following proposed amendments to Parts 211, 218, and 219 of the Board’s air pollution regulations in the *Illinois Register*. Proposed additions to Parts 211, 218, and 219 are underlined, and proposed deletions appear stricken.

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

PART 211  
 DEFINITIONS AND GENERAL PROVISIONS

SUBPART A: GENERAL PROVISIONS

Section	
211.101	Incorporations by Reference
211.102	Abbreviations and Conversion Factors

SUBPART B: DEFINITIONS

Section	
211.121	Other Definitions
211.122	Definitions (Repealed)
211.130	Accelacota
211.150	Accumulator
211.170	Acid Gases
211.210	Actual Heat Input
211.230	Adhesive
211.240	Adhesion Promoter
211.250	Aeration
211.270	Aerosol Can Filling Line
211.290	Afterburner
211.310	Air Contaminant
211.330	Air Dried Coatings
211.350	Air Oxidation Process
211.370	Air Pollutant
211.390	Air Pollution
211.410	Air Pollution Control Equipment
211.430	Air Suspension Coater/Dryer
211.450	Airless Spray
211.470	Air Assisted Airless Spray
211.474	Alcohol
211.479	Allowance
211.484	Animal
211.485	Animal Pathological Waste
211.490	Annual Grain Through-Put
211.495	Anti-Glare/Safety Coating
211.510	Application Area
211.530	Architectural Coating



211.550	As Applied
211.560	As-Applied Fountain Solution
211.570	Asphalt
211.590	Asphalt Prime Coat
211.610	Automobile
211.630	Automobile or Light-Duty Truck Assembly Source or Automobile or Light-Duty Truck Manufacturing Plant
211.650	Automobile or Light-Duty Truck Refinishing
211.660	Automotive/Transportation Plastic Parts
211.670	Baked Coatings
211.680	Bakery Oven
211.685	Basecoat/Clearcoat System
211.690	Batch Loading
211.695	Batch Operation
211.696	Batch Process Train
211.710	Bead-Dipping
211.730	Binders
211.740	Brakehorsepower (rated-bhp)
211.750	British Thermal Unit
211.770	Brush or Wipe Coating
211.790	Bulk Gasoline Plant
211.810	Bulk Gasoline Terminal
211.820	Business Machine Plastic Parts
211.830	Can
211.850	Can Coating
211.870	Can Coating Line
211.890	Capture
211.910	Capture Device
211.930	Capture Efficiency
211.950	Capture System
211.953	Carbon Adsorber
211.955	Cement
211.960	Cement Kiln
211.970	Certified Investigation
211.980	Chemical Manufacturing Process Unit
211.990	Choke Loading
<u>211.1000</u>	<u>Class II Finish</u>
211.1010	Clean Air Act
211.1050	Cleaning and Separating Operation
211.1070	Cleaning Materials
211.1090	Clear Coating
211.1110	Clear Topcoat
211.1120	Clinker
211.1130	Closed Purge System
211.1150	Closed Vent System
211.1170	Coal Refuse

211.1190	Coating
211.1210	Coating Applicator
211.1230	Coating Line
211.1250	Coating Plant
211.1270	Coil Coating
211.1290	Coil Coating Line
211.1310	Cold Cleaning
211.1312	Combined Cycle System
211.1316	Combustion Turbine
211.1320	Commence Commercial Operation
211.1324	Commence Operation
211.1328	Common Stack
211.1330	Complete Combustion
211.1350	Component
211.1370	Concrete Curing Compounds
211.1390	Concentrated Nitric Acid Manufacturing Process
211.1410	Condensate
211.1430	Condensible PM-10
211.1465	Continuous Automatic Stoking
211.1467	Continuous Coater
211.1470	Continuous Process
211.1490	Control Device
211.1510	Control Device Efficiency
211.1515	Control Period
211.1520	Conventional Air Spray
211.1530	Conventional Soybean Crushing Source
211.1550	Conveyorized Degreasing
211.1570	Crude Oil
211.1590	Crude Oil Gathering
211.1610	Crushing
211.1630	Custody Transfer
211.1650	Cutback Asphalt
211.1670	Daily-Weighted Average VOM Content
211.1690	Day
211.1710	Degreaser
211.1730	Delivery Vessel
211.1740	Diesel Engine
<u>211.1745</u>	<u>Digital Printing</u>
211.1750	Dip Coating
211.1770	Distillate Fuel Oil
211.1780	Distillation Unit
211.1790	Drum
211.1810	Dry Cleaning Operation or Dry Cleaning Facility
211.1830	Dump-Pit Area
211.1850	Effective Grate Area
211.1870	Effluent Water Separator

211.1875	Elastomeric Materials
<u>211.1878</u>	<u>Electrical Apparatus Component</u>
211.1880	Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Shielding Coatings
211.1885	Electronic Component
211.1890	Electrostatic Bell or Disc Spray
211.1900	Electrostatic Prep Coat
211.1910	Electrostatic Spray
211.1920	Emergency or Standby Unit
211.1930	Emission Rate
211.1950	Emission Unit
211.1970	Enamel
211.1990	Enclose
211.2010	End Sealing Compound Coat
211.2030	Enhanced Under-the-Cup Fill
211.2050	Ethanol Blend Gasoline
211.2070	Excess Air
211.2080	Excess Emissions
211.2090	Excessive Release
211.2110	Existing Grain-Drying Operation (Repealed)
211.2130	Existing Grain-Handling Operation (Repealed)
211.2150	Exterior Base Coat
211.2170	Exterior End Coat
211.2190	External Floating Roof
211.2210	Extreme Performance Coating
211.2230	Fabric Coating
211.2250	Fabric Coating Line
211.2270	Federally Enforceable Limitations and Conditions
211.2285	Feed Mill
211.2290	Fermentation Time
211.2300	Fill
211.2310	Final Repair Coat
211.2330	Firebox
211.2350	Fixed-Roof Tank
<u>211.2355</u>	<u>Flat Wood Paneling</u>
<u>211.2356</u>	<u>Flat Wood Paneling Coating Line</u>
211.2360	Flexible Coating
211.2365	Flexible Operation Unit
<u>211.2368</u>	<u>Flexible Packaging</u>
211.2370	Flexographic Printing
211.2390	Flexographic Printing Line
211.2410	Floating Roof
211.2420	Fossil Fuel
211.2425	Fossil Fuel-Fired
211.2430	Fountain Solution
211.2450	Freeboard Height

211.2470	Fuel Combustion Emission Unit or Fuel Combustion Emission Source
211.2490	Fugitive Particulate Matter
211.2510	Full Operating Flowrate
211.2530	Gas Service
211.2550	Gas/Gas Method
211.2570	Gasoline
211.2590	Gasoline Dispensing Operation or Gasoline Dispensing Facility
211.2610	Gel Coat
<u>211.2615</u>	<u>General Work Surface</u>
211.2620	Generator
211.2630	Gloss Reducers
211.2650	Grain
211.2670	Grain-Drying Operation
211.2690	Grain-Handling and Conditioning Operation
211.2710	Grain-Handling Operation
211.2730	Green-Tire Spraying
211.2750	Green Tires
211.2770	Gross Heating Value
211.2790	Gross Vehicle Weight Rating
211.2810	Heated Airless Spray
211.2815	Heat Input
211.2820	Heat Input Rate
211.2830	Heatset
211.2850	Heatset Web Offset Lithographic Printing Line
<u>211.2855</u>	<u>Heatset Web Letterpress Printing Line</u>
211.2870	Heavy Liquid
211.2890	Heavy Metals
211.2910	Heavy Off-Highway Vehicle Products
211.2930	Heavy Off-Highway Vehicle Products Coating
211.2950	Heavy Off-Highway Vehicle Products Coating Line
<u>211.2965</u>	<u>High Precision Optic</u>
211.2970	High Temperature Aluminum Coating
211.2990	High Volume Low Pressure (HVLP) Spray
211.3010	Hood
211.3030	Hot Well
211.3050	Housekeeping Practices
211.3070	Incinerator
211.3090	Indirect Heat Transfer
211.3110	Ink
211.3130	In-Process Tank
211.3150	In-Situ Sampling Systems
211.3170	Interior Body Spray Coat
211.3190	Internal-Floating Roof
211.3210	Internal Transferring Area
<u>211.3215</u>	<u>Janitorial Cleaning</u>
211.3230	Lacquers

211.3250	Large Appliance
211.3270	Large Appliance Coating
211.3290	Large Appliance Coating Line
211.3300	Lean-Burn Engine
<u>211.3305</u>	<u>Letterpress Printing Line</u>
211.3310	Light Liquid
211.3330	Light-Duty Truck
211.3350	Light Oil
211.3370	Liquid/Gas Method
211.3390	Liquid-Mounted Seal
211.3410	Liquid Service
211.3430	Liquids Dripping
211.3450	Lithographic Printing Line
211.3470	Load-Out Area
211.3480	Loading Event
211.3483	Long Dry Kiln
211.3485	Long Wet Kiln
211.3487	Low-NO <sub>x</sub> Burner
211.3490	Low Solvent Coating
211.3500	Lubricating Oil
211.3510	Magnet Wire
211.3530	Magnet Wire Coating
211.3550	Magnet Wire Coating Line
<u>211.3555</u>	<u>Maintenance Cleaning</u>
211.3570	Major Dump Pit
211.3590	Major Metropolitan Area (MMA)
211.3610	Major Population Area (MPA)
211.3620	Manually Operated Equipment
211.3630	Manufacturing Process
211.3650	Marine Terminal
211.3660	Marine Vessel
211.3670	Material Recovery Section
211.3690	Maximum Theoretical Emissions
211.3695	Maximum True Vapor Pressure
<u>211.3705</u>	<u>Medical Device</u>
<u>211.3707</u>	<u>Medical Device and Pharmaceutical Manufacturing</u>
211.3710	Metal Furniture
211.3730	Metal Furniture Coating
211.3750	Metal Furniture Coating Line
211.3770	Metallic Shoe-Type Seal
211.3780	Mid-Kiln Firing
211.3790	Miscellaneous Fabricated Product Manufacturing Process
211.3810	Miscellaneous Formulation Manufacturing Process
211.3830	Miscellaneous Metal Parts and Products
211.3850	Miscellaneous Metal Parts and Products Coating
211.3870	Miscellaneous Metal Parts or Products Coating Line

211.3890	Miscellaneous Organic Chemical Manufacturing Process
211.3910	Mixing Operation
211.3915	Mobile Equipment
211.3930	Monitor
211.3950	Monomer
211.3960	Motor Vehicles
211.3965	Motor Vehicle Refinishing
211.3970	Multiple Package Coating
211.3980	Nameplate Capacity
211.3990	New Grain-Drying Operation (Repealed)
211.4010	New Grain-Handling Operation (Repealed)
211.4030	No Detectable Volatile Organic Material Emissions
211.4050	Non-Contact Process Water Cooling Tower
211.4055	Non-Flexible Coating
211.4065	Non-Heatset
211.4067	NO <sub>x</sub> Trading Program
211.4070	Offset
211.4090	One Hundred Percent Acid
211.4110	One-Turn Storage Space
211.4130	Opacity
211.4150	Opaque Stains
211.4170	Open Top Vapor Degreasing
211.4190	Open-Ended Valve
211.4210	Operator of a Gasoline Dispensing Operation or Operator of a Gasoline Dispensing Facility
211.4230	Organic Compound
211.4250	Organic Material and Organic Materials
211.4260	Organic Solvent
211.4270	Organic Vapor
211.4290	Oven
211.4310	Overall Control
211.4330	Overvarnish
211.4350	Owner of a Gasoline Dispensing Operation or Owner of a Gasoline Dispensing Facility
211.4370	Owner or Operator
211.4390	Packaging Rotogravure Printing
211.4410	Packaging Rotogravure Printing Line
211.4430	Pail
211.4450	Paint Manufacturing Source or Paint Manufacturing Plant
211.4470	Paper Coating
211.4490	Paper Coating Line
211.4510	Particulate Matter
211.4530	Parts Per Million (Volume) or PPM (Vol)
211.4550	Person
211.4590	Petroleum
211.4610	Petroleum Liquid

211.4630	Petroleum Refinery
211.4650	Pharmaceutical
211.4670	Pharmaceutical Coating Operation
211.4690	Photochemically Reactive Material
211.4710	Pigmented Coatings
211.4730	Plant
211.4740	Plastic Part
211.4750	Plasticizers
211.4770	PM-10
211.4790	Pneumatic Rubber Tire Manufacture
211.4810	Polybasic Organic Acid Partial Oxidation Manufacturing Process
211.4830	Polyester Resin Material(s)
211.4850	Polyester Resin Products Manufacturing Process
211.4870	Polystyrene Plant
211.4890	Polystyrene Resin
211.4910	Portable Grain-Handling Equipment
211.4930	Portland Cement Manufacturing Process Emission Source
211.4950	Portland Cement Process or Portland Cement Manufacturing Plant
211.4960	Potential Electrical Output Capacity
211.4970	Potential to Emit
211.4990	Power Driven Fastener Coating
211.5010	Precoat
211.5015	Preheater Kiln
211.5020	Preheater/Precalciner Kiln
211.5030	Pressure Release
211.5050	Pressure Tank
211.5060	Pressure/Vacuum Relief Valve
211.5061	Pretreatment Wash Primer
211.5065	Primary Product
211.5070	Prime Coat
211.5080	Primer Sealer
211.5090	Primer Surfacer Coat
211.5110	Primer Surfacer Operation
211.5130	Primers
211.5150	Printing
211.5170	Printing Line
211.5185	Process Emission Source
211.5190	Process Emission Unit
211.5210	Process Unit
211.5230	Process Unit Shutdown
211.5245	Process Vent
211.5250	Process Weight Rate
211.5270	Production Equipment Exhaust System
211.5310	Publication Rotogravure Printing Line
211.5330	Purged Process Fluid
<u>211.5335</u>	<u>Radiation Effect Coating</u>

211.5340	Rated Heat Input Capacity
211.5350	Reactor
211.5370	Reasonably Available Control Technology (RACT)
211.5390	Reclamation System
211.5410	Refiner
211.5430	Refinery Fuel Gas
211.5450	Refinery Fuel Gas System
211.5470	Refinery Unit or Refinery Process Unit
211.5480	Reflective Argent Coating
211.5490	Refrigerated Condenser
211.5500	Regulated Air Pollutant
211.5510	Reid Vapor Pressure
211.5530	Repair
<u>211.5535</u>	<u>Repair Cleaning</u>
211.5550	Repair Coat
211.5570	Repaired
211.5580	Repowering
<u>211.5585</u>	<u>Research and Development Operation</u>
211.5590	Residual Fuel Oil
211.5600	Resist Coat
211.5610	Restricted Area
211.5630	Retail Outlet
211.5640	Rich-Burn Engine
211.5650	Ringelmann Chart
211.5670	Roadway
211.5690	Roll Coater
211.5710	Roll Coating
211.5730	Roll Printer
211.5750	Roll Printing
211.5770	Rotogravure Printing
211.5790	Rotogravure Printing Line
211.5810	Safety Relief Valve
211.5830	Sandblasting
211.5850	Sanding Sealers
<u>211.5860</u>	<u>Scientific Instrument</u>
211.5870	Screening
<u>211.5875</u>	<u>Screen Printing</u>
211.5880	Screen Printing on Paper
<u>211.5885</u>	<u>Screen Reclamation</u>
211.5890	Sealer
211.5910	Semi-Transparent Stains
211.5930	Sensor
211.5950	Set of Safety Relief Valves
211.5970	Sheet Basecoat
211.5980	Sheet-Fed
211.5990	Shotblasting



211.6010	Side-Seam Spray Coat
211.6025	Single Unit Operation
211.6030	Smoke
211.6050	Smokeless Flare
211.6060	Soft Coat
211.6070	Solvent
211.6090	Solvent Cleaning
211.6110	Solvent Recovery System
211.6130	Source
211.6140	Specialty Coatings
211.6145	Specialty Coatings for Motor Vehicles
211.6150	Specialty High Gloss Catalyzed Coating
211.6170	Specialty Leather
211.6190	Specialty Soybean Crushing Source
211.6210	Splash Loading
211.6230	Stack
211.6250	Stain Coating
211.6270	Standard Conditions
211.6290	Standard Cubic Foot (scf)
211.6310	Start-Up
211.6330	Stationary Emission Source
211.6350	Stationary Emission Unit
211.6355	Stationary Gas Turbine
211.6360	Stationary Reciprocating Internal Combustion Engine
211.6370	Stationary Source
211.6390	Stationary Storage Tank
211.6400	Stencil Coat
<u>211.6405</u>	<u>Sterilization Indicating Ink</u>
211.6410	Storage Tank or Storage Vessel
211.6420	Strippable Spray Booth Coating
<u>211.6425</u>	<u>Stripping</u>
211.6430	Styrene Devolatilizer Unit
211.6450	Styrene Recovery Unit
211.6470	Submerged Loading Pipe
211.6490	Substrate
211.6510	Sulfuric Acid Mist
211.6530	Surface Condenser
<u>211.6535</u>	<u>Surface Preparation</u>
211.6540	Surface Preparation Materials
211.6550	Synthetic Organic Chemical or Polymer Manufacturing Plant
211.6570	Tablet Coating Operation
211.6580	Texture Coat
211.6590	Thirty-Day Rolling Average
211.6610	Three-Piece Can
211.6620	Three or Four Stage Coating System
211.6630	Through-the-Valve Fill

211.6650	Tooling Resin
211.6670	Topcoat
211.6690	Topcoat Operation
211.6695	Topcoat System
211.6710	Touch-Up
211.6720	Touch-Up Coating
211.6730	Transfer Efficiency
211.6750	Tread End Cementing
211.6770	True Vapor Pressure
211.6790	Turnaround
211.6810	Two-Piece Can
211.6830	Under-the-Cup Fill
211.6850	Undertread Cementing
211.6860	Uniform Finish Blender
211.6870	Unregulated Safety Relief Valve
211.6880	Vacuum Metallizing
211.6890	Vacuum Producing System
211.6910	Vacuum Service
211.6930	Valves Not Externally Regulated
211.6950	Vapor Balance System
211.6970	Vapor Collection System
211.6990	Vapor Control System
211.7010	Vapor-Mounted Primary Seal
211.7030	Vapor Recovery System
211.7050	Vapor-Suppressed Polyester Resin
211.7070	Vinyl Coating
211.7090	Vinyl Coating Line
211.7110	Volatile Organic Liquid (VOL)
211.7130	Volatile Organic Material Content (VOMC)
211.7150	Volatile Organic Material (VOM) or Volatile Organic Compound (VOC)
211.7170	Volatile Petroleum Liquid
211.7190	Wash Coat
211.7200	Washoff Operations
211.7210	Wastewater (Oil/Water) Separator
211.7230	Weak Nitric Acid Manufacturing Process
211.7250	Web
211.7270	Wholesale Purchase - Consumer
211.7290	Wood Furniture
211.7310	Wood Furniture Coating
211.7330	Wood Furniture Coating Line
211.7350	Woodworking
211.7400	Yeast Percentage

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

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

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 201: Definitions, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5, p. 777, effective February 3, 1979; amended in R78-3 and 4, 35 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13590; amended in R82-1 (Docket A) at 10 Ill. Reg. 12624, effective July 7, 1986; amended in R85-21(A) at 11 Ill. Reg. 11747, effective June 29, 1987; amended in R86-34 at 11 Ill. Reg. 12267, effective July 10, 1987; amended in R86-39 at 11 Ill. Reg. 20804, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 787, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7284, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7621, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10862, effective June 27, 1989; amended in R89-8 at 13 Ill. Reg. 17457, effective January 1, 1990; amended in R89-16(A) at 14 Ill. Reg. 9141, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 5223, effective March 28, 1991; amended in R88-14 at 15 Ill. Reg. 7901, effective May 14, 1991; amended in R91-10 at 15 Ill. Reg. 15564, effective October 11, 1991; amended in R91-6 at 15 Ill. Reg. 15673, effective October 14, 1991; amended in R91-22 at 16 Ill. Reg. 7656, effective May 1, 1992; amended in R91-24 at 16 Ill. Reg. 13526, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16504, effective September 27, 1993; amended in R93-11 at 17 Ill. Reg. 21471, effective December 7, 1993; amended in R93-14 at 18 Ill. Reg. 1253, effective January 18, 1994; amended in R94-12 at 18 Ill. Reg. 14962, effective September 21, 1994; amended in R94-14 at 18 Ill. Reg. 15744, effective October 17, 1994; amended in R94-15 at 18 Ill. Reg. 16379, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16929, effective November 15, 1994; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6823, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7344, effective May 22, 1995; amended in R95-2 at 19 Ill. Reg. 11066, effective July 12, 1995; amended in R95-16 at 19 Ill. Reg. 15176, effective October 19, 1995; amended in R96-5 at 20 Ill. Reg. 7590, effective May 22, 1996; amended in R96-16 at 21 Ill. Reg. 2641, effective February 7, 1997; amended in R97-17 at 21 Ill. Reg. 6489, effective May 16, 1997; amended in R97-24 at 21 Ill. Reg. 7695, effective June 9, 1997; amended in R96-17 at 21 Ill. Reg. 7856, effective June 17, 1997; amended in R97-31 at 22 Ill. Reg. 3497, effective February 2, 1998; amended in R98-17 at 22 Ill. Reg. 11405, effective June 22, 1998; amended in R01-9 at 25 Ill. Reg. 108, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4582, effective March 15, 2001; amended in R01-17 at 25 Ill. Reg. 5900, effective April 17, 2001; amended in R05-16 at 29 Ill. Reg. 8181, effective May 23, 2005; amended in R05-11 at 29 Ill. Reg. 8892, effective June 13, 2005; amended in R04-12/20 at 30 Ill. Reg. 9654, effective May 15, 2006; amended in R07-18 at 31 Ill. Reg. 14271, effective September 25, 2007; amended in R10-07 at 34 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_; amended in R10-08 at 34 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

### **Section 211.1000 Class II Finish**

“Class II Finish” means a finish that meets the specifications of Voluntary Product Standard PS-59-73, as approved by the American National Standards Institute.

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

**Section 211.1745 Digital Printing**

“Digital Printing” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the transfer of electronic files directly from a computer to an electronically driven output device that prints the image directly on the selected media (substrate). Printing using home and office equipment is excluded from this definition.

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

**Section 211.1878 Electrical Apparatus Component**

“Electrical Apparatus Component” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an internal component such as wires, windings, stators, rotors, magnets, contacts, relays, energizers, and connections in an apparatus that generates or transmits electrical energy including, but not limited to, alternators, generators, transformers, electric motors, cables, and circuit breakers, except for the actual cabinet in which the components are housed. Electrical components of graphic arts application equipment and hot-line tools are also included in this category.

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

**Section 211.1885 Electronic Component**

“Electronic Component” means, for the purposes of 35 Ill. Adm. Code 218.182(f), and 219.182(f), 218.187, and 219.187, all portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters, except for the actual cabinet in which the components are housed.

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

**Section 211.2355 Flat Wood Paneling**

“Flat Wood Paneling” means natural finish hardwood plywood panels, hardwood panels with Class II finishes, tileboard, exterior siding, and printed interior panels made of hardwood, plywood, or thin particleboard.

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

**Section 211.2356 Flat Wood Paneling Coating Line**

“Flat Wood Paneling Coating Line” means a coating line in which any protective, decorative, or functional coating is applied to flat wood paneling.

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

**Section 211.2368 Flexible Packaging**

“Flexible Packaging” means any package or part of a package, the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, liners, and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials. Shrink-wrap labels or wrappers (but not self-adhesive labels) printed on or in-line with a flexible packaging printing press are also considered to be flexible packaging. Flexible packaging does not include folding cartons, gift wraps, hot stamp foils, wall coverings, vinyl products, decorative laminates, floor coverings, or tissue products.

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

**Section 211.2615 General Work Surface**

“General Work Surface” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an area of a medical device or pharmaceutical manufacturing facility where solvent cleaning is performed on work surfaces, but for which cleaning specifications are not required to be maintained in accordance with criteria and procedures established to meet requirements of the United States Food and Drug Administration and/or other applicable regulatory agencies with authority over manufacturing operations for medical devices and/or pharmaceuticals. General work surfaces shall not include items defined under “Janitorial Cleaning.”

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

**Section 211.2830 Heatset**

"Heatset" means a class of lithography or letterpress which requires a heated dryer to solidify the printing inks.

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

**Section 211.2855 Heatset Web Letterpress Printing Line**

“Heatset Web Letterpress Printing Line” means a letterpress printing line in which a continuous roll of substrate is fed through the printing press and an oven is used to solidify the printing inks.

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

**Section 211.2965 High Precision Optic**

“High Precision Optic” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187,

an optical element used in an electro-optical device that is designed to sense, detect, or transmit light energy, including specific wavelengths of light energy and changes in light energy levels.

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

### **Section 211.3215 Janitorial Cleaning**

“Janitorial Cleaning” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the cleaning of building or facility components, including, but not limited to, floors, ceilings, walls, windows, doors, stairs, bathrooms, furnishings, and exterior surfaces of office equipment, and excludes the cleaning of work areas where manufacturing or repair activity is performed.

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

### **Section 211.3305 Letterpress Printing Line**

“Letterpress Printing Line” means a web or sheetfed printing line that does not constitute a flexographic printing line, in which the image area is raised relative to the non-image area and the ink is transferred to the substrate directly from the image surface.

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

### **Section 211.3555 Maintenance Cleaning**

“Maintenance Cleaning” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning operation or activity carried out to ensure that general work areas where manufacturing or repair activity is performed remains clean, and to clean tools, machinery, molds, forms, jigs, and equipment. This definition does not include the cleaning of coatings, adhesives, or ink application equipment.

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

### **Section 211.3705 Medical Device**

“Medical Device” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar article, including any component or accessory, that meets one or more of the following conditions:

- a) it is intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment, or prevention of disease;
- b) it is intended to affect the structure or any function of the body; or

- c) it is defined in the National Formulary or the United States Pharmacopeia, or any supplement to them.

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

### **Section 211.3707 Medical Device and Pharmaceutical Manufacturing**

“Medical Device and Pharmaceutical Manufacturing” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the collection of equipment and activities to prepare, utilize, maintain, and repair work areas, in order to accomplish one or more steps in preparing a medical device or pharmaceutical for its intended use. Manufacturing is typically, but not always, conducted in accordance with criteria and procedures established to meet requirements of the United States Food and Drug Administration and/or other applicable regulatory agencies with authority over manufacturing operations for global sales of medical devices and/or pharmaceuticals. Work areas and equipment shall include all machinery, tools, equipment, rooms, tables, countertops, and facilities for maintaining employee health and safety that are subject to such criteria and procedures.

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

### **Section 211.4065 Non-Heatset**

"Non-heatset" means a class of lithography or letterpress which does not require a heated dryer to solidify the printing inks. Ultraviolet-cured and electron beam-cured inks are considered non-heatset.

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

### **Section 211.5335 Radiation Effect Coating**

“Radiation Effect Coating” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a coating or coating system engineered to interact, through absorption or reflection, with specific regions of the electromagnetic energy spectrum, such as the ultraviolet, visible, infrared, or microwave regions. Uses include, but are not limited to, lightning strike protection, electromagnetic pulse protection, and radar avoidance. Coatings that have been designated “classified” by the Department of Defense are not included in this definition.

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

### **Section 211.5535 Repair Cleaning**

“Repair Cleaning” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning operation or activity carried out during a repair process.

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

**Section 211.5585 Research and Development Operation**

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

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

**Section 211.5860 Scientific Instrument**

"Scientific Instrument" means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an instrument, including the components, assemblies, and subassemblies used in their manufacture, and associated accessories and reagents that is used for the detection, measurement, analysis, separation, synthesis, or sequencing of various compounds.

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

**Section 211.5875 Screen Printing**

"Screen Printing" means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a process in which the printing ink passes through a taut screen or fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint.

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

**Section 211.5885 Screen Reclamation**

"Screen Reclamation" means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, a solvent cleaning activity carried out in a screen printing operation where the screen is completely cleaned and the stencil removed for recycling or reuse of the screen for other production runs.

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

**Section 211.6405 Sterilization Indicating Ink**

"Sterilization Indicating Ink" means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, an ink that changes color to indicate that sterilization has occurred. Such ink is used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage.



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

**Section 211.6425 Stripping**

“Stripping” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the removal of cured coatings, cured inks, or cured adhesives.

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

**Section 211.6535 Surface Preparation**

“Surface Preparation” means, for purposes of 35 Ill. Adm. Code 218.187 and 219.187, the removal of contaminants such as dust, soil, oil, and grease prior to coating, adhesive, or ink applications.

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

**Section 211.7290 Wood Furniture**

"Wood furniture" means room furnishings including cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, wood paneling other than flat wood paneling, wood flooring, and any other coated furnishings made of wood, wood composition, or fabricated wood materials.

(Source: Amended 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 218  
ORGANIC MATERIAL EMISSION STANDARDS AND  
LIMITATIONS FOR THE CHICAGO AREA

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

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. at 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 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(p) of this Part shall comply with the requirements in Section 218.204(p), as well as all applicable requirements in Sections 218.205 through 218.211, 218.214, and 218.217, by May 1, 2010.

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

## **SUBPART E: SOLVENT CLEANING**

### **Section 218.181 Solvent Cleaning Degreasing Operations ~~in General~~**

The requirements of Sections 218.182, 218.183, 218.184, and 218.186 of this Subpart shall apply to all cold cleaning, open top vapor degreasing, and conveyORIZED degreasing operations which use volatile organic materials.

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

### **Section 218.187 Other Industrial Solvent Cleaning Operations**

- a) Applicability. On and after April 1, 2011:
  - 1) Except as provided in subsection (a)(2) of this Section, the requirements of this Section shall apply to all cleaning operations which use organic materials at sources that emit a total of 6.8 kg/day (15 lbs/day) or more of

VOM from cleaning operations at the source, in the absence of air pollution control equipment. For purposes of this Section, “cleaning operation” means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;

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

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

- i) Cleaning operations subject to the limitations in Sections 218.182, 218.183, or 218.184;
- ii) Janitorial cleaning;
- iii) Stripping of cured coatings, inks, or adhesives, including screen reclamation activities;
- iv) Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;

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

- i) Aerospace coating;
- ii) Flexible package printing;
- iii) Lithographic printing;
- iv) Letterpress printing;
- v) Flat wood paneling coating;
- vi) Large appliance coating;
- vii) Metal furniture coating;
- viii) Paper, film, and foil coating;

- ix) Wood furniture coating;
- x) Shipbuilding and repair coating;
- xi) Plastic parts coating;
- xii) Miscellaneous metal parts coating;
- xiii) Fiberglass boat manufacturing;
- xiv) Miscellaneous industrial adhesives; and
- xv) Auto and light-duty truck assembly coating;

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

- i) Cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics;
- ii) Cleaning conducted as part of performance laboratory tests on coatings, adhesives, or inks; research and development operations; or laboratory tests in quality assurance laboratories;
- iii) Cleaning of paper-based gaskets and clutch assemblies where rubber is bonded to metal by means of an adhesive;
- iv) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics;
- v) Cleaning of medical device and pharmaceutical manufacturing facilities using no more than 1.5 gallons per day of solvents;
- vi) Cleaning of adhesive application equipment used for thin metal laminating;
- vii) Cleaning of electronic or electrical cables;
- viii) Touch-up cleaning performed on printed circuit boards where surface mounted devices have already been attached;

- ix) Cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery products using no more than three gallons per day of ethyl acetate;
- x) Cleaning of application equipment used to apply coatings on satellites and radiation effect coatings;
- xi) Cleaning of application equipment used to apply solvent-borne fluoropolymer coatings;
- xii) Cleaning of ultraviolet or electron beam adhesive application;
- xiii) Cleaning of sterilization indicating ink application equipment if the facility uses no more than 1.5 gallons per day of solvents for such cleaning;
- xiv) Cleaning of metering rollers, dampening rollers, and printing plates;
- xv) Cleaning of numismatic dies; and
- xvi) Cleaning operations associated with digital printing.

b) Material and Control Requirements. No owner or operator of a source subject to this Section shall perform any cleaning operation subject to this Section unless the owner or operator meets the requirements in subsection (b)(1), (b)(2), or (b)(3):

1) The VOM content of the as-used cleaning solutions (minus water and any compounds which are specifically exempted from the definitions of VOM) does not exceed the following emissions limitations:

A)	<u>Product cleaning during manufacturing process or surface preparation for coating, adhesive, or ink application:</u>	<u>kg/l</u> <u>lb/gal</u>
i)	<u>Electrical apparatus components and electronic components</u>	<u>0.10</u> <u>0.83</u>
ii)	<u>Medical device and pharmaceutical manufacturing</u>	<u>0.80</u> <u>6.7</u>
B)	<u>Repair and maintenance cleaning:</u>	<u>kg/l</u> <u>lb/gal</u>
i)	<u>Electrical apparatus components and electronic components</u>	<u>0.10</u> <u>0.83</u>

	ii)	<u>Medical device and pharmaceutical manufacturing: tools, equipment, and machinery</u>	<u>0.80</u>	<u>6.7</u>
	iii)	<u>Medical device and pharmaceutical manufacturing: general work surfaces</u>	<u>0.60</u>	<u>5.0</u>
C)		<u>Cleaning of ink application equipment:</u>	<u>kg/l</u>	<u>lb/gal</u>
	i)	<u>Rotogravure printing that does not print flexible packaging</u>	<u>0.10</u>	<u>.83</u>
	ii)	<u>Screen printing</u>	<u>0.50</u>	<u>04.2</u>
	iii)	<u>Ultraviolet ink and electron beam ink application equipment, except screen printing</u>	<u>0.65</u>	<u>5.4</u>
	iv)	<u>Flexographic printing that does not print flexible packaging</u>	<u>0.10</u>	<u>0.83</u>
D)		<u>All other cleaning operations not subject to a specific limitation in subsections (b)(1)(A) through (b)(1)(C) of this Section</u>	<u>kg/l</u>	<u>lb/gal</u>
			<u>0.050</u>	<u>0.42</u>
2)		<u>The composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20° C (68° F); or</u>		
3)		<u>An afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall. The owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions.</u>		
c)		<u>The owner or operator of a subject source shall demonstrate compliance with this Section by using the applicable test methods and procedures specified in</u>		



subsection (g) of this Section and by complying with the recordkeeping and reporting requirements specified in subsection (e) of this Section.

d) Operating Requirements. The owner or operator of a source subject to the requirements of this Section shall comply with the following for each subject cleaning operation:

- 1) Cover open containers and properly cover and store applicators used to apply cleaning solvents;
- 2) Minimize air circulation around the cleaning operation;
- 3) Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;
- 4) Utilize equipment practices that minimize emissions.

e) Recordkeeping and Reporting Requirements.

1) The owner or operator of a source exempt from the limitations of this Section because of the criteria in Section 218.187(a)(1) of this Subpart shall comply with the following:

A) By April 1, 2011, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:

- i) A declaration that the source is exempt from the requirements of this Section because of the criteria in Section 218.187(a)(1);
- ii) Calculations which demonstrate that combined emissions of VOM from cleaning operations at the source never equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment;

B) Notify the Agency of any record that shows that the combined emissions of VOM from cleaning operations at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs

2) All sources subject to the requirements of this Section shall:

A) By April 1, 2011, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:

- i) A declaration that all subject cleaning operations are in compliance with the requirements of this Section;
  - ii) Identification of each subject cleaning operation and each VOM-containing cleaning solution used as of the date of certification in such operation;
  - iii) If complying with the emissions control system requirement, what type of emissions control system will be used;
  - iv) Initial documentation that each subject cleaning operation will comply with the applicable limitation, including copies of manufacturer's specifications, test results (if any), formulation data, and calculations;
  - v) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;
  - vi) A description of the practices and procedures that the source will follow to ensure compliance with the limitations in Section 218.187(d); and
  - vii) A description of each cleaning operation exempt pursuant to Section 218.187(a)(2), if any, and a listing of the emission unit(s) on which the exempt cleaning operation is performed;
- B) At least 30 calendar days before changing the method of compliance between subsections (b)(1) or (b)(2), and subsection (b)(3) of this Section, notify the Agency in writing of such change. Such notification shall include a demonstration of compliance with the newly applicable subsection;
- 3) All sources complying with this Section pursuant to the requirements of subsection (b)(1) of this Section shall collect and record the following information for each cleaning solution used:
- A) For each cleaning solution which is prepared at the source with automatic equipment:
    - i) The name and identification of each cleaning solution;
    - ii) The VOM content of each cleaning solvent in the cleaning solution;

- iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
  - iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
  - v) The VOM content of the as-used cleaning solution, with supporting calculations; and
  - vi) A calibration log for the automatic equipment, detailing periodic checks;
- B) For each batch of cleaning solution which is not prepared at the source with automatic equipment:
- i) The name and identification of each cleaning solution;
  - ii) Date, time of preparation, and each subsequent modification of the batch;
  - iii) The VOM content of each cleaning solvent in the cleaning solution;
  - iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
  - v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are not prepared at the site but are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part;
- 4) All sources complying with this Section pursuant to the requirements of subsection (b)(2) of this Section shall collect and record the following information for each cleaning solution used:
- A) The name and identification of each cleaning solution;

- B) Date, time of preparation, and each subsequent modification of the batch;
  - C) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with the applicable methods and procedures specified in Section 218.110 of this Part;
  - D) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - E) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with the applicable methods and procedures specified in Section 218.110 of this Part;
- 5) All sources complying with this Section pursuant to the requirements of subsection (b)(3) of this Section shall comply with the following:
- A) By April 1, 2011, or upon initial start-up of the source, whichever is later, and upon initial start-up of a new emissions control system, include in the certification required by subsection (e)(3) of this Section a declaration that the monitoring equipment required under Section 218.187(f) of this Subpart has been properly installed and calibrated according to manufacturer's specifications;
  - B) If testing of an emissions control system is conducted pursuant to Section 218.187(g) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
    - i) A declaration that all tests and calculations necessary to demonstrate compliance with Section 218.187(b)(3) of this Subpart have been properly performed;
    - ii) A statement whether the subject cleaning operation is or is not in compliance with Section 218.187(b)(3) of this Subpart; and
    - iii) The operating parameters of the emissions control system during testing, as monitored in accordance with Section 218.187(f) of this Subpart;
  - C) Collect and record daily the following information for each cleaning operation subject to the requirements of Section 218.187(b)(3) of this Subpart:

- i) Emissions control system monitoring data in accordance with Section 218.187(f) of this Subpart, as applicable;
    - ii) A log of operating time for the emissions control system, monitoring equipment, and the associated cleaning equipment;
    - iii) A maintenance log for the emissions control system and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
  - D) Maintain records documenting the use of good operating practices consistent with the equipment manufacturer's specifications for the cleaning equipment being used and the emissions control system equipment. At a minimum, these records shall include:
    - i) Records for periodic inspection of the cleaning equipment and emissions control system equipment with date of inspection, individual performing the inspection, and nature of inspection;
    - ii) Records for repair of malfunctions and breakdowns with identification and description of incident, date identified, date repaired, nature of repair, and the amount of VOM released into the atmosphere as a result of the incident;
- 6) All sources subject to the requirements of subsections (b) and (d) of this Section shall notify the Agency of any violation of subsections (b) or (d) by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation;
- 7) All records required by this subsection (e) shall be retained by the source for at least three years and shall be made available to the Agency upon request.
- f) Monitoring Requirements.
  - 1) If an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to Section 218.187(b)(3) of this Subpart shall:
    - A) Install, calibrate, operate, and maintain temperature monitoring device(s) with an accuracy of 3° C or 5° F on the emissions control

system in accordance with Section 218.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the emissions control system is operating; and

B) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor;

2) If an emissions control system other than an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to Section 218.187(b)(3) of this Subpart shall install, maintain, calibrate, and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 218.187(b)(3).

g) Testing Requirements.

1) Testing to demonstrate compliance with the requirements of this Section shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Section. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing;

2) Testing to demonstrate compliance with the VOM content limitations in Section 218.187(b)(1) of this Subpart, and to determine the VOM content of cleaning solvents and cleaning solutions, shall be conducted, as follows:

A) The applicable test methods and procedures specified in Section 218.105(a) of this Part shall be used, provided, however, Method 24, incorporated by reference in Section 218.112 of this Part, shall be used to demonstrate compliance; or

B) The manufacturer's specifications for VOM content for cleaning solvents may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part, provided, however, Method 24 shall be used to determine compliance;

3) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning

solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 218.110 of this Part;

- 4) For afterburners and carbon adsorbers, the methods and procedures of Section 218.105(d) through (f) shall be used for testing to demonstrate compliance with the requirements of Section 218.187(b)(3) of this Subpart, as follows:
- A) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part;
  - B) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part;
  - C) To determine the VOM concentration of the exhaust stream entering and exiting the emissions control system, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:
    - i) The allowable outlet concentration of VOM from the emissions control system is less than 50 ppmv, as carbon;
    - ii) The VOM concentration at the inlet of the emissions control system and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and
    - iii) Due to the high efficiency of the emissions control system, the anticipated VOM concentration at the emissions control system exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but

the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;

D) During testing, the cleaning equipment shall be operated at representative operating conditions and flow rates;

5) An owner or operator using an emissions control system other than an afterburner or carbon adsorber shall conduct testing to demonstrate compliance with the requirements of Section 218.187(b)(3) of this Subpart as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 218.187(b)(3) of this Subpart.

(Source: Added 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 provided in Sections 218.204(l) and 218.204(p), 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.)

		kg/l	lb/gal
3)	Topcoat	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.)

		kg/l	lb/gal
4)	Final repair coat	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	(3.7)
		0.44*	(3.7)*
		kg/l	lb/gal
c)	Paper Coating	0.35	(2.9)
		0.28*	(2.3)*

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which flexographic, ~~or~~ rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in ~~Subpart H 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.)

		kg/l	lb/gal
d)	Coil Coating	0.31	(2.6)
		0.20*	(1.7)*
e)	Fabric Coating	0.35	(2.9)
		0.28*	(2.3)*
f)	Vinyl Coating	0.45	(3.8)
		0.28*	(2.3)*
g)	Metal Furniture Coating		
	1) Air dried	0.36	(3.0)
		0.34*	(2.8)*
	2) Baked	0.36	(3.0)
		0.28*	(2.3)*
h)	Large Appliance Coating		
	1) Air dried	0.34	(2.8)
		0.34*	(2.8)*

2)	Baked	0.34	(2.8)
		0.28*	(2.3)*

(Note: The limitation 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.)

		kg/l	lb/gal
i)	Magnet Wire Coating	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 1/4 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<br>0.42* | (3.5)<br>(3.5)* |
| 2) | Extreme performance topcoat (air dried)                                                                                                 | 0.42<br>0.42* | (3.5)<br>(3.5)* |
| 3) | Final repair coat (air dried)                                                                                                           | 0.42<br>0.42* | (3.5)<br>(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 (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 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	(6.0)
		0.72*	(6.0)*
5)	All other coatings	0.36	(3.0)
		0.36*	(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 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)*
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)*

p) Flat Wood Paneling Coatings. On and after May 1, 2010, flat wood paneling coatings shall comply with one of the following limitations:

- 1) 0.25 kg VOM/l of coatings (2.1 lb VOM/gal coatings); or
- 2) 0.35 kg VOM/l solids (2.9 lb VOM/gal solids).

(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) 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), (c), (d), (e), (f), ~~or (i), or (p)~~ 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.

**Error! Bookmark not defined.** 
$$E_d = \sum_{i=1}^n V_i C_i$$

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.

(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), (c), (d), (e), (f), or (i) 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 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 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 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 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 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 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 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 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 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:

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

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

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 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 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) No owner or operator of a metal furniture coating line 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 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) No owner or operator of a large appliance coating line 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 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) No owner or operator of a flat wood paneling coating line which 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 of the flat wood paneling coating line complies with all requirements set forth in subsection (b)(2) of this Section.

(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), ~~(f)~~, or (g) below:

- a) No owner or operator of a coating line 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 contained in Section 218.204(p) of this Subpart shall operate said 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(p) or the alternative control options in Section 218.205 or 218.207, and the requirements of Sections 218.211 and 218.217 of this Subpart, as applicable.

(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 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 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 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 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 startup date. 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 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(p) of this Subpart, the weight of VOM per volume of coatings or solids, 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 startup 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; and-
  - E) For coating lines subject to the limitations of Section 218.204(p) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.
- 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. 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(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 218.204(p) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.
- FE) 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.



- GF) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
  - HG) 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 startup 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(p) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.
  - ED) 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), ~~(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 startup 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. 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) below.
  - H) An example format for presenting the records required in subsection (f)(2) 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(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 affected. 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 start-up date, whichever is later, the owner or operator of a flat wood paneling coating line subject to the requirements in Section 218.217 of this Subpart shall comply with the following:
- 1) By May 1, 2010, or upon initial start-up, whichever is later, submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Sections 218.217(c) and 218.217(d) of this Subpart; and
  - 2) Notify the Agency of any violation of Section 218.217 of this Subpart by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation.

(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(p) 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 3(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

$A_d$  and  $A_p$  are defined in subsections (2)(A) and (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:

$$A_1 = \sum_{i=1}^n V_i L_i \frac{(D_i - C_i)}{(D_i - L_i)}$$

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 and 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 218.217 Wood Furniture Coating and Flat Wood Paneling Coating Work Practice Standards**

- a) Spray booth cleaning. Each owner or operator of a source subject to the limitations of Section 218.204(1) of this Subpart shall not use compounds containing more than 8.0 percent, by weight, of VOM for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, and

metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating.

b) Application equipment requirements. No owner or operator of a source subject to the limitations of Section 218.204(l) of this Subpart shall use conventional air spray guns to apply coating materials to wood furniture under the circumstances specified in subsections (b)(1) through (4) of this Section:

- 1) To apply coating materials that have a VOM content no greater than 1.0 kg VOM/kg solids (1.0 lb VOM/lb solids), as applied;
- 2) For repair coating under the following circumstances:
  - A) The coating materials are applied after the completion of the coating operation; or
  - B) The coating materials are applied after the stain and before any other type of coating material is applied, and the coating materials are applied from a container that has a volume of no more than 2.0 gallons;
- 3) If the spray gun is aimed and triggered automatically, rather than manually; or
- 4) If emissions from the finishing application station are directed to a control device pursuant to Section 218.216 of this Subpart.

c) Cleaning and storage requirements. Each owner or operator of a source subject to the limitations of Section 218.204(l) or 218.204(p) of this Subpart shall:

- 1) Keep, store, and dispose of all coating, cleaning, and washoff materials in closed containers;
- 2) Pump or drain all organic solvent used for line cleaning into closed containers;
- 3) Collect all organic solvent used to clean spray guns in closed containers; and
- 4) Control emissions from washoff operations by using closed tanks.

d) Additional cleaning and storage requirements for flat wood paneling coating lines. Every owner or operator of a source subject to the limitations of Section 218.204(p) of this Subpart shall:

- 1) Minimize spills of VOM-containing coatings, thinners, and cleaning materials and clean up spills immediately;
  - 2) Minimize emissions of VOM during the cleaning of storage, mixing, and conveying equipment; and
  - 3) Keep mixing vessels which contain VOM-containing coatings and other VOM-containing materials closed except when specifically in use.
- e) ~~Application equipment requirements. No owner or operator of a source subject to the limitations of Section 218.204(1) of this Subpart shall use conventional air spray guns to apply coating materials to wood furniture except under the circumstances specified in subsections (c)(1) through (4) of this Section:~~
- 1) ~~To apply coating materials that have a VOM content no greater than 1.0 kg VOM/kg solids (1.0 lb VOM/lb solids), as applied;~~
  - 2) ~~For repair coating under the following circumstances:~~
    - A) ~~The coating materials are applied after the completion of the coating operation; or~~
    - B) ~~The coating materials are applied after the stain and before any other type of coating material is applied, and the coating materials are applied from a container that has a volume of no more than 2.0 gallons;~~
  - 3) ~~If the spray gun is aimed and triggered automatically, rather than manually; or~~
  - 4) ~~If emissions from the finishing application station are directed to a control device pursuant to Section 218.216 of this Subpart.~~

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

## **SUBPART H: PRINTING AND PUBLISHING**

### **Section 218.401 Flexographic and Rotogravure Printing**

- a) No owner or operator of a subject flexographic, ~~packaging rotogravure or publication~~-rotogravure printing line shall apply at any time any coating or ink unless the VOM content does not exceed the limitation specified in either subsection (a)(1) or (a)(2) below, as applicable. Compliance with this Section must be demonstrated through the applicable coating or ink analysis test methods

and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.404(c) of this Part. As an alternative to compliance with this subsection, a subject printing line may meet the requirements of subsection (b) or (c) below.

- 1) Prior to May 1, 2010, either:
  - A) Forty percent VOM by volume of the coating and ink (minus water and any compounds which are specifically exempted from the definition of VOM), or
  - B)2) Twenty-five percent VOM by volume of the volatile content in the coating and ink; and
- 2) On and after May 1, 2010:
  - A) For owners or operators of flexographic or rotogravure printing lines that do not print flexible packaging, either:
    - i) Forty percent VOM by volume of the coating and ink (minus water and any compounds which are specifically exempted from the definition of VOM), or
    - ii) Twenty-five percent VOM by volume of the volatile content in the coating and ink;
  - B) For owners or operators of flexographic or rotogravure printing lines that print flexible packaging, or that print flexible packaging and non-flexible packaging on the same line, either:
    - i) 0.8 kg VOM/kg (0.8 lbs VOM/lb) solids applied, or
    - ii) 0.16 kg VOM/kg (0.16 lbs VOM/lb) inks and coatings applied;
- b) Weighted Averaging Alternative.
  - 1) Prior to May 1, 2010, no~~ne~~ owner or operator of a subject flexographic, packaging rotogravure or publication rotogravure printing line shall apply coatings or inks on the subject printing line unless the weighted average, by volume, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(1)(A) (as determined by subsection (b)(1)(A)) or subsection (a)(12)(B) (as determined by subsection (b)(12)(B)). Compliance with this subsection must be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 218.105(a) of

this Part and the recordkeeping and reporting requirements specified in Section 218.404(d) of this Part.

- A1) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(1)(A) of this Section.

$$VOM_{(i)(A)} = \frac{\sum_{i=1}^n C_i L_i (V_{si} + V_{VOMi})}{\sum_{i=1}^n L_i (V_{si} + V_{VOMi})}$$

Where:

$VOM_{(i)(A)}$  = The weighted average VOM content in units of percent VOM by volume of all coatings and inks (minus water and any compounds which are specifically exempted from the definition of VOM) used each day;

$i$  = Subscript denoting a specific coating or ink as applied;

$n$  = The number of different coatings and/or inks as applied each day on a printing line;

$C_i$  = The VOM content in units of percent VOM by volume of each coating or ink as applied (minus water and any compounds which are specifically exempted from the definition of VOM);

$L_i$  = The liquid volume of each coating or ink as applied in units of 1 (gal);

$V_{si}$  = The volume fraction of solids in each coating or ink as applied; and

$V_{VOMi}$  = The volume fraction of VOM in each coating or ink as applied.

- B2) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day

on the subject printing line exceeds the limitation specified in subsection (a)(12)(B) of this Section.

$$VOM_{(i)(B)} = \frac{\sum_{i=1}^n C_i L_i V_{VMi}}{\sum_{i=1}^n L_i V_{VMi}}$$

Wwhere:

$VOM_{(i)(B)}$  = The weighted average VOM content in units of percent VOM by volume of the volatile content of all coatings and inks used each day;

$i$  = Subscript denoting a specific coating or ink as applied;

$n$  = The number of different coatings and/or inks as applied each day on each printing line;

$C_i$  = The VOM content in units of percent VOM by volume of the volatile matter in each coating or ink as applied;

$L_i$  = The liquid volume of each coating or ink as applied in units of 1 (gal) and

$V_{VMi}$  = The volume fraction of volatile matter in each coating or ink as applied.

- 2) On and after May 1, 2010, no owner or operator of a subject flexographic or rotogravure printing line that does not print flexible packaging shall apply coatings or inks on the subject printing line unless the weighted average, by weight, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(2)(A)(i) (calculated in accordance with the equation in subsection (b)(1)(A)) or subsection (a)(2)(A)(ii) (calculated in accordance with the equation in subsection (b)(1)(B)) of this Section. Compliance with this subsection shall be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.404(d) of this Subpart.

3) On and after May 1, 2010, no owner or operator of a subject flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, shall apply coatings or inks on the subject printing line unless the weighted average, by weight, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(2)(B)(i) (calculated in accordance with the equation in subsection (b)(3)(A)) or subsection (a)(2)(B)(ii) (calculated in accordance with the equation in subsection (b)(3)(B)) of this Section. Compliance with this subsection shall be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.404(d) of this Subpart.

A) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(2)(B)(i) of this Section.

$$\text{VOM}_{(A)} = \frac{\sum_{i=1}^n C_i W_i}{\sum_{i=1}^n W_i}$$

Where:

VOM<sub>(A)</sub> = The weighted average VOM content in units of kg VOM per kg (lbs VOM per lb) solids of all coatings and inks used each day;

i = Subscript denoting a specific coating or ink as applied;

n = The number of different coatings and/or inks as applied each day on a printing line;

C<sub>i</sub> = The VOM content in units of kg VOM per kg (lbs VOM per lb) solids of each coating or ink as applied;

W<sub>i</sub> = Weight of solids in each coating or ink, as applied, in units of kg/l (lb/gal).

- B) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(2)(B)(ii) of this Section.

$$\text{VOM}_{(B)} = \frac{\sum_{i=1}^n C_i L_i}{\sum_{i=1}^n L_i}$$

Where:

VOM<sub>(B)</sub> ≡ The weighted average VOM content in units of kg (lbs) VOM per weight in kg (lbs) of all coatings or inks as applied each day;

i ≡ Subscript denoting a specific coating or ink as applied;

n ≡ The number of different coatings and/or inks as applied each day on each printing line;

C<sub>i</sub> ≡ The VOM content in units of kg (lbs) VOM per weight in kg (lbs) of each coating or ink as applied;

L<sub>i</sub> ≡ The weight of each coating or ink, as applied, in units of kg/l (lb/gal).

- c) Capture System and Control Device Requirements.

- 1) Prior to May 1, 2010, no owner or operator of a subject flexographic, packaging rotogravure or publication rotogravure printing line equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsection (c)(1)(A), (c)(1)(B)(2), or (c)(13)(C), as well as and subsections (c)(14)(D), (c)(5)<sub>2</sub>, and (c)(6) below.

A1) A carbon adsorption system is used which reduces the captured VOM emissions by at least 90 percent by weight, or

B2) An incineration system is used which reduces the captured VOM emissions by at least 90 percent by weight, or



C3) An alternative VOM emission reduction system is used which is demonstrated to have at least a 90 percent control device efficiency, approved by the Agency and approved by USEPA as a SIP revision, and

D4) The printing line is equipped with a capture system and control device that provides an overall reduction in VOM emissions of at least:

iA) 75 percent where a publication rotogravure printing line is employed, or

iiB) 65 percent where a packaging rotogravure printing line is employed, or

iiiC) 60 percent where a flexographic printing line is employed;  
~~and~~

2) On and after May 1, 2010, no owner or operator of a flexographic or rotogravure printing line that does not print flexible packaging and that is equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as well as subsections (c)(1)(D), (c)(5), and (c)(6) of this Section;

3) On and after May 1, 2010, no owner or operator of a flexographic or rotogravure printing line that prints flexible packaging and that is equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsections (c)(5) and (c)(6) of this Section and the capture system and control device provides an overall reduction in VOM emissions of at least:

A) 65 percent in cases where a subject printing line was first constructed at the subject source prior to March 14, 1995, and utilizes a control device that was first constructed at the subject source prior to January 1, 2010; or

B) 70 percent where a subject printing line was first constructed at the subject source prior to March 14, 1995, and utilizes a control device that was first constructed at the subject source on or after January 1, 2010; or

C) 75 percent where a subject printing line was first constructed at the subject source on or after March 14, 1995, and utilizes a control device that was first constructed at the subject source prior to January 1, 2010; or

- D) 80 percent where a subject printing line was first constructed at the subject source on or after March 14, 1995, and utilizes a control device that was first constructed at the subject source on or after January 1, 2010;
- 4) On and after May 1, 2010, the owner or operator of a flexographic or rotogravure printing line that prints flexible packaging and non-flexible packaging on the same line and that is equipped with a control device shall be subject to the requirements of either subsection (c)(1)(D) or subsection (c)(3) of this Section, whichever is more stringent, as well as subsections (c)(5) and (c)(6) of this Section;
- 5) The control device is equipped with the applicable monitoring equipment specified in Section 218.105(d)(2) of this Part and except as provided in Section 218.105(d)(3) of this Part, the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use, and
- 6) The capture system and control device are operated at all times when the subject printing line is in operation. The owner or operator shall demonstrate compliance with this subsection by using the applicable capture system and control device test methods and procedures specified in Section 218.105(c) through Section 218.105(f) of this Part and by complying with the recordkeeping and reporting requirements specified in Section 218.404(e) of this Part. The owner or operator of a printing line subject to the requirements in Section 218.401(c)(2) or 218.401(c)(1)(D) of this Section that performed all testing necessary to demonstrate compliance with Section 218.401(c)(1)(D) prior to May 1, 2010, is not required to retest pursuant to this subsection (c)(6). The owner or operator of a printing line subject to the requirements in Section 218.401(c)(3) shall perform testing in compliance with this subsection (c)(6), even if the owner or operator already performed such testing prior to May 1, 2010, unless the following conditions are met. Nothing in this subsection (c)(6), however, shall limit the Agency's ability to require that the owner or operator perform testing pursuant to Section 201.282:
- A) On or after May 1, 2000, the owner or operator of the subject printing line performed all testing necessary to demonstrate compliance with Section 218.401(c)(1)(D);
- B) Such testing also demonstrated an overall control efficiency equal to or greater than the applicable control efficiency requirements in Section 218.401(c)(3);

- C) The owner or operator submitted the results of such test(s) to the Agency, and the test(s) was not rejected by the Agency;
  - D) The same capture system and control device subject to the tests referenced in subsection (c)(6)(A) of this Section is still being used by the subject printing line; and
  - E) The owner or operator complies with all recordkeeping and reporting requirements in Section 218.404(e)(1)(B);
- d) No owner or operator of subject flexographic or rotogravure printing line(s) that print flexible packaging or print flexible packaging and non-flexible packaging on the same line shall cause or allow VOM containing cleaning materials, including used cleaning towels, associated with the subject flexographic or rotogravure printing line(s) to be kept, stored, or disposed of in any manner other than in closed containers, or conveyed from one location to another in any manner other than in closed containers or pipes, except when specifically in use.

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

#### **Section 218.402 Applicability**

- a) Except as otherwise provided in Section 218.401, the~~The~~ limitations of Section 218.401 of this Subpart~~Part~~ apply to all flexographic and rotogravure printing lines at a subject source. Sources with flexographic and/or rotogravure printing lines are subject sources if:
  - 1) Total maximum theoretical emissions of VOM from all flexographic and rotogravure printing line(s) (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)) at the source ever exceed 90.7 Mg (100 tons) per calendar year and the flexographic and rotogravure printing line(s) (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)) at the source are not limited to less than 90.7 Mg (100 tons) of VOM emissions per calendar year in the absence of air pollution control equipment through production or capacity limitations contained in a federally enforceable permit or a SIP revision; or
  - 2) The flexographic and rotogravure printing line(s) (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)) at the source have a potential to emit 22.7 Mg (25 tons) or more of VOM per year.
- b) The limitations of Section 218.401(d) shall apply to all owners or operators of flexographic or rotogravure printing line(s) that print flexible packaging, or that print flexible packaging and non-flexible packaging on the same line, at a source

where the combined emissions of VOM from all flexographic and rotogravure printing lines total 6.8 kg/day (15 lbs/day) or more (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)), in the absence of air pollution control equipment.

- cb) Upon achieving compliance with this Subpart, the flexographic and rotogravure printing lines are not required to meet Subpart G (Sections 218.301 or 218.302 of this Part). Flexographic and rotogravure printing lines exempt from this Subpart are subject to Subpart G (Sections 218.301 or 218.302 of this Part). Rotogravure or flexographic equipment used for both roll printing and paper coating is subject to this Subpart.
- de) Once subject to the limitations of Section 218.401, a flexographic or rotogravure printing line is always subject to the limitations of Section 218.401 of this Part.
- ed) Any owner or operator of any flexographic or rotogravure printing line that is exempt from any of the limitations of Section 218.401 of this Part because of the criteria in this Section is subject to the recordkeeping and reporting requirements specified in Section 218.404(b) and (f) of this Part, as applicable.

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

### **Section 218.403 Compliance Schedule**

Every owner or operator of a flexographic and/or rotogravure printing line shall comply with the applicable requirements of Section 218.401 and Section 218.404 of this Part in accordance with the applicable compliance schedule(s) specified in subsection (a), (b), (c), ~~(d)~~, (e), (f), or (g) below:

- a) No owner or operator of a flexographic or rotogravure printing line which is exempt from the limitations of Section 218.401 of this Part because of the criteria in Section 218.402(a) of this Part shall operate said printing 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 218.404(b) of this Part.
- b) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 218.401(a)(1) of this Part shall operate said printing 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 218.401(a)(1) and Section 218.404(c) of this Part.
- c) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 218.401(b)(1) of this Part shall operate said printing 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 218.401(b)(1) and Section 218.404(d) of this Part.

- d) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 218.401(c)(1)(D) of this Part shall operate said printing 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, the applicable provisions in Sections 218.401(c) and ~~Section~~ 218.404(e) of this Part.
- e) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 218.401(a)(2), (b)(2), or (b)(3) or complying by means of Section 218.401(c)(2), (c)(3), or (c)(4), shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 218.401(a)(2), (b)(2) or (b)(3), and Section 218.401(c), as applicable, and all applicable provisions in Section 218.404 of this Part.
- f) No owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 218.401(d) and Section 218.404(g) of this Part.
- g) No owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, and which is exempt from the limitations of Section 218.401(d) because of the criteria in Section 218.402(b) of this Part shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 218.402(b) and Section 218.404(f) of this Part.

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

### **Section 218.404 Recordkeeping and Reporting**

- a) The VOM content of each coating and ink 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 printing line which is exempt from any of the limitations of Section 218.401 of this Part because of the criteria in Section 218.402(a) of this Part shall comply with the following:
  - 1) By a date consistent with Section 218.106 of this Part, or, for flexographic or rotogravure printing lines that print flexible packaging or that print flexible packaging and non-flexible packaging on the same line, by May 1, 2010, the owner or operator of a flexographic ~~or~~ rotogravure printing line to which this subsection is applicable shall certify to the Agency that the flexographic and rotogravure printing line is exempt under the

provisions of Section 218.402(a) of this Part. Such certification shall include:

- A) A declaration that the flexographic and rotogravure printing line is exempt from the limitations of the criteria in Section 218.401 of this Part because of Section 218.402(a) of this Part, and
- B) Calculations which demonstrate that total maximum theoretical emissions of VOM from all flexographic and rotogravure printing lines at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices. Total maximum theoretical emissions of VOM for a flexographic or rotogravure printing source is the sum of maximum theoretical emissions of VOM from each flexographic and rotogravure printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year before the application of capture systems and control devices for each flexographic and rotogravure printing line at the source:

$$E_p = A \times B + 1095 (C \times D \times F)$$

where:

$E_p$  = Total maximum theoretical emissions of VOM from one flexographic or rotogravure printing line in units of kg/year (lbs/year);

A = Weight of VOM per volume of solids of the coating or ink with the highest VOM content as applied each year on the printing line in units of kg VOM/1 (lbs VOM/gal) of coating or ink solids;

B = Total volume of solids for all coatings and inks that can potentially be applied each year on the printing line in units of 1/year (gal/year). The method by which the owner or operator accurately calculated the volume of each coating and ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;

C = Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of ~~kg~~kg/1 (lbs VOM/gal) of such material;

D = The greatest volume of cleanup material or solvent used in any 8-hour period and

F = The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.

- 2) On and after a date consistent with Section 218.106 of this Part, the owner or operator of a flexographic and rotogravure printing line referenced in this subsection shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:
    - A) The name and identification number of each coating and ink as applied on each printing line.
    - B) The VOM content and the volume of each coating and ink as applied each year on each printing line.
  - 3) On and after a date consistent with Section 218.106 of this Part, the owner or operator of a flexographic and rotogravure printing line exempted from the limitations of Section 218.401 of this Part because of the criteria in Section 218.402(a) of this Part shall notify the Agency of any record showing that total maximum theoretical emissions of VOM from all printing lines exceed 90.7 Mg (100 tons) in any calendar year 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.
- c) Any owner or operator of a printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(a) of this Part shall comply with the following:
- 1) By a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance from an existing subject printing line from Section 218.401(b) or Section 218.401(c) of this Part to Section 218.401(a) of this Part, the owner or operator of a subject printing line shall certify to the Agency that the printing line will be in compliance with Section 218.401(a) of this Part on and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or on and after the initial start-up date. The owner or operator of a printing line subject to the requirements in Section 218.401(a)(2)(B) shall certify in accordance with this subsection (c)(1) even if the owner or operator of such line submitted a certification prior to January 1, 2010. Such certification shall include:

- A) The name and identification number of each coating and ink as applied on each printing line.
  - B) The VOM content of each coating and ink as applied each day on each printing line.
- 2) On and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(a) of this Part 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 and ink as applied on each printing line.
  - B) The VOM content of each coating and ink as applied each day on each printing line.
- 3) On and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 218.401(a) of this Part 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 Section 218.401 of this Part from Section 218.401(a) of this Part to Section 218.401(b) or (c) of this Part, the owner or operator shall comply with all requirements of subsection (d)(1) or (e)(1) of this Section, respectively. Upon changing the method of compliance with Section 218.401 of this Part from Section 218.401(a) of this Part to Section 218.401(b) or (c) of this Part, 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 printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(b) shall comply with the following:
- 1) By a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing subject printing line from Section 218.401(a) or (c) of this Part to Section 218.401(b) of



this Part, the owner or operator of the subject printing line shall certify to the Agency that the printing line will be in compliance with Section 218.401(b) of this Part on and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or on and after the initial start-up date. The owner or operator of a printing line subject to the requirements in Section 218.401(b)(3) shall certify in accordance with this subsection (d)(1) even if the owner or operator of such line submitted a certification prior to January 1, 2010. Such certification shall include:

- A) The name and identification number of each printing line which will comply by means of Section 218.401(b) of this Part.
  - B) The name and identification number of each coating and ink available for use on each printing line.
  - C) The VOM content of each coating and ink as applied each day on each printing line.
  - D) The method by which the owner or operator will accurately calculate the volume, or weight of solids, as applicable, of each coating and ink as applied each day on each printing line.
  - E) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
  - F) 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 Section 218.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(b) of this Part shall collect and record all of the following information each day for each printing line and maintain the information at the source for a period of three years:
- A) The name and identification number of each coating and ink as applied on each printing line.
  - B) The VOM content and the volume, or weight of solids, as applicable, of each coating and ink as applied each day on each printing line
  - C) The daily-weighted average VOM content of all coatings and inks as applied on each printing line.

- 3) On and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 218.401(b) of this Part 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 Section 218.401 of this Part from Section 218.401(b) of this Part to Section 218.401(a) or 218.401(c) of this Part, 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 Section 218.401 of this Part from Section 218.401(b) of this Part to Section 218.401(a) or (c) of this Part, 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 printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(c) of this Part shall comply with the following:
- 1) By a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing printing line from Section 218.401(a) or (b) of this Part to Section 218.401(c) of this Part, the owner or operator of the subject printing line shall either:
    - A) Pperform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with Section 218.401(c) of this Part on and after a date consistent with Section 218.106, or Section 218.403(e), as applicable, or on and after the initial start-up date; or:-
    - B) If not required to perform such testing pursuant to Section 218.401(c)(6), submit a certification to the Agency that includes:
      - i) A declaration that the owner or operator is not required to perform testing pursuant to Section 218.401(c)(6);
      - ii) The date(s) that testing demonstrating compliance with Section 218.401(c)(3) was performed; and

- iii) The date(s) that the results of such testing were submitted to the Agency;
- 2) On and after a date consistent with Section 218.106 of this Part, or Section 218.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 218.401 of this Part and complying by means of Section 218.401(c) of this Part shall collect and record all of the following information each day for each printing line and maintain the information at the facility for a period of three years:
- A) Control device monitoring data.
  - B) A log of operating time for the capture system, control device, monitoring equipment and the associated printing line.
  - C) 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 Section 218.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 218.401(c) of this Part, 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 Section 218.401 of this Part from Section 218.401(c) of this Part to Section 218.401(a) or (b) of this Part, 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 Section 218.401 of this Part from Section 218.401(c) of this Part to Section 218.401(a) or (b) of this Part, the owner or operator shall comply with all requirements of subsection (c) or (d) of this Section, respectively.
- 4) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, the owner or operator of a printing line subject to the requirements in Section 218.401(c)(3) or (c)(4) shall submit to the Agency records documenting the date the printing line was constructed at the subject source and the date the control device for such printing line was constructed at the subject source.

- f) Any owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, and which is exempt from the limitations of Section 218.401(d) because of the criteria in Section 218.402(b) shall:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, and upon modification of a printing line, submit a certification to the Agency that includes:
    - A) A declaration that the source is exempt from the requirements in Section 218.401(d) because of the criteria in Section 218.402(b);
    - B) Calculations which demonstrate that combined emissions of VOM from all flexographic and rotogravure printing lines (including inks and solvents used for cleanup operations associated with such printing lines) at the source never equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment; and
  - 2) Notify the Agency in writing if the combined emissions of VOM from all flexographic and rotogravure printing lines (including inks and solvents used for cleanup operations associated with the flexographic and rotogravure lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs
- g) Any owner or operator of a printing line subject to the limitations of Section 218.401(d) shall:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, submit a certification to the Agency describing the practices and procedures that the owner or operator will follow to ensure compliance with the limitations of Section 218.401(d); and
  - 2) Notify the Agency of any violation of Section 218.401(d) by sending a description of the violation and copies of records documenting such violations to the Agency within 30 days following the occurrence of the violation.
- h) All records required by subsections (f) and (g) of this Section shall be retained for at least three years and shall be made available to the Agency upon request.

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

### **Section 218.405 Lithographic Printing: Applicability**

- a) ~~Until March 15, 1996, the limitations of Section 218.406 of this Subpart apply to all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with the heatset web offset lithographic printing line(s)) at a source subject to the requirements of this Subpart. All sources with heatset web offset lithographic printing lines are sources subject to the requirements of this Subpart unless:~~
- 1) ~~Total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with the heatset web offset lithographic printing line(s)) at the source never exceed 90.7 Mg (100 tons) per calendar year in the absence of air pollution control equipment; or~~
  - 2) ~~A federally enforceable permit or SIP revision for all heatset web offset lithographic printing line(s) at a source requires the owner or operator to limit production or capacity of these printing line(s) to reduce total VOM emissions from all heatset web offset lithographic printing line(s) to 90.7 Mg (100 tons) per calendar year or less in the absence of air pollution control equipment.~~
- b) ~~Any owner or operator of any heatset web offset lithographic printing line that is exempt from the limitations in Section 218.406 of this Subpart because of the criteria in subsection (a) of this Section shall be subject to the recordkeeping and reporting requirements in Section 218.406(b)(1) of this Subpart.~~
- ae) ~~On and after March 15, 1996, Every~~every owner or operator of lithographic printing line(s) is subject to the recordkeeping and reporting requirements in Section 218.411 of this Subpart.
- bd) ~~On and after March 15, 1996, Prior to May 1, 2010, Sections 218.407 through 218.410 of this Subpart shall apply to:~~
- 1) All owners or operators of heatset web offset lithographic printing line(s) unless:
    - A) Total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with heatset web offset lithographic printing lines) at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices. To determine a source's total maximum theoretical emissions of VOM for the purposes of this subsection, the owner or operator shall use the calculations set forth in Section 218.411(a)(1)(C)~~406(b)(1)(A)(ii)~~ of this Subpart; or

- B) Federally enforceable permit conditions or SIP revision for all heatset web offset lithographic printing line(s) at the source requires the owner or operator to limit production or capacity of these printing line(s) to total VOM emissions of 90.7 Mg/yr (100 TPY) or less, before the application of capture systems and control devices;
- 2) All owners or operators of ~~heatset web offset, non heatset web offset, or sheet fed offset~~ lithographic printing line(s), unless the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) never exceed 45.5 kg/day (100 lbs/day), as determined in accordance with Section 218.411(a)(1)(B), before the application of capture systems and control devices.
- c) On and after May 1, 2010:
- 1) The requirements in Sections 218.407(a)(1)(B) through (a)(1)(E) and 218.407(b) and all applicable provisions in Sections 218.409 through 218.411 of this Subpart shall apply to all owners or operators of heatset web offset lithographic printing line(s), if the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) ever exceed 45.5 kg/day (100 lbs/day), calculated in accordance with Section 218.411(b)(2)(B), before the application of capture systems and control devices;
- 2) The requirements in Sections 218.407(a)(1)(A) and 218.407(a)(2) through (a)(5) and all applicable provisions in Sections 218.409 through 218.411 of this Subpart shall apply to all owners or operators of lithographic printing line(s) if the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) ever equal or exceed 6.8 kg/day (15 lbs/day), calculated in accordance with Section 218.411(b)(1)(B), before the application of capture systems and control devices;
- 3) Notwithstanding subsection (c)(2) of this Section, at sources where the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), calculated in accordance with Section 218.411(b)(1)(B), before the application of capture systems and control devices, the following exclusions shall apply unless the owner or operator of the source certifies pursuant to Section 218.411(g)(1)(B) that the source will not make use of any such exclusions:

- A) The requirements of Sections 218.407(a)(1)(A), 218.407(a)(2), and 218.407(a)(3) of this Subpart shall not apply to lithographic printing line(s) with a total fountain solution reservoir of less than 3.8 liters (1 gallon);
  - B) The requirements of Section 218.407(a)(3) of this Subpart shall not apply to sheet-fed offset lithographic printing line(s) with maximum sheet size of 11x17 inches or smaller;
  - C) The requirements of Section 218.407(a)(4) of this Subpart shall not apply to up to a total of 416.3 liters (110 gallons) per year of cleaning materials used on all lithographic printing lines at the source;
  - D) The requirements of Section 218.407(a)(4)(A)(i) shall not apply to lithographic printing lines at the source. Instead, the requirements of Section 218.407(a)(4)(A)(ii) shall apply to such lines.
- de) If a lithographic printing line at a source is or becomes subject to one or more of the limitations in Sections ~~218.406~~ or 218.407 of this Subpart, the lithographic printing line(s) at the source are always subject to the applicable provisions of this Subpart.

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

**~~Section 218.406 - Provisions Applying to Heatset Web Offset Lithographic Printing Prior to March 15, 1996~~**

- a) ~~Emission Standards and Limitations. No owner or operator of a heatset web offset printing line at a source that meets or exceeds the applicability levels in Section 218.405(a) of this Subpart may cause or allow the operation of such heatset web offset printing line(s) unless the owner or operator meets the requirements in subsections (a)(1) or (a)(2) of this Section and the requirements in subsections (a)(3) and (a)(4) of this Section. The owner or operator shall demonstrate compliance with this Section by using the applicable test methods and procedures specified in Section 218.105(a), (d), and (f) of this Part and by complying with the recordkeeping and reporting requirements specified in subsection (b) of this Section.~~
  - 1) ~~An afterburner system is installed and operated that reduces 90 percent of the VOM emissions (excluding methane and ethane) from the dryer exhaust; or~~
  - 2) ~~The fountain solution contains no more than 8 percent, by weight, of VOM and a condensation recovery system is installed and operated that~~

removes at least 75 percent of the non-isopropyl alcohol organic materials from the dryer exhaust; and

- 3) ~~The control device is equipped with the applicable monitoring equipment specified in Section 218.105(d)(2) of this Part and the monitoring equipment is installed, calibrated, operated and maintained according to manufacturer's specifications at all times when the control device is in use; and~~
  - 4) ~~The control device is operated at all times when the printing line is in operation.~~
- b) ~~Recordkeeping and Reporting. The VOM content of each fountain solution and ink and the efficiency of each 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 subsection.~~
- 1) ~~Any owner or operator of a lithographic printing line which is exempted from the limitations of subsection (a) of this Section because of the criteria in 218.405(a) of this Subpart shall comply with the following:~~
    - A) ~~By a date consistent with Section 218.106 of this Part, the owner or operator of a heatset web offset lithographic printing line to which subsection (b)(1) of this Section is applicable shall certify to the Agency that the heatset web offset lithographic printing line is exempt under the provisions of Section 218.405(a) of this Subpart. Such certification shall include:~~
      - i) ~~A declaration that the heatset web offset lithographic printing line is exempt from the limitations of subsection (a) of this Section because of the criteria in Section 218.405(a) of this Subpart; and~~
      - ii) ~~Calculations which demonstrate that total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of air pollution control equipment. Total maximum theoretical emissions of VOM for a heatset web offset lithographic printing source is the sum of maximum theoretical emissions of VOM from each heatset web offset lithographic printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year in the absence of air pollution control equipment for each heatset web offset lithographic printing line at the source:~~



$$E_p = (R \times A \times B) + [(C \times D) + 1095 (F \times G \times H)]$$

where:

- $E_p$  = Total maximum theoretical emissions of VOM from one heatset web offset printing line in units of kg/yr (lb/yr);
- $A$  = Weight of VOM per volume of solids of ink with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal) of solids;
- $B$  = Total volume of solids for all inks that can potentially be applied each year on the printing line in units of l/yr (gal/yr). The instrument or method by which the owner or operator accurately measured or calculated the volume of each ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;
- $C$  = Weight of VOM per volume of fountain solution with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal);
- $D$  = The total volume of fountain solution that can potentially be used each year on the printing line in units of l/yr (gal/yr). The instrument and/or method by which the owner or operator accurately measured or calculated the volume of each fountain solution used and the amount that can potentially be used each year on the printing line shall be described in the certification to the Agency;
- $F$  = Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of Kg/l (lb/gal) of such material;
- $G$  = The greatest volume of cleanup material or solvent used in any 8-hour period; and
- $H$  = The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.

R = The multiplier representing the amount of VOM not retained in the substrate being used. For paper, R = 0.8. For foil, plastic, or other impervious substrates, R = 1.0.

- B) ~~On and after a date consistent with Section 218.106 of this Part, the owner or operator of a heatset web offset lithographic printing line to which subsection (b)(1) of this Section is applicable shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:~~
- i) ~~The name and identification of each fountain solution and ink as applied on each printing line; and~~
  - ii) ~~The VOM content and the volume of each fountain solution and ink as applied each year on each printing line.~~
- C) ~~On and after a date consistent with Section 218.106 of this Part, the owner or operator of a source exempted from the limitations of subsection (a) of this Section because of the criteria in Section 218.405(a) of this Subpart shall notify the Agency of any record showing that total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines exceed 90.7 Mg (100 tons) in any calendar year in the absence of air pollution control equipment by sending a copy of such record to the Agency within 30 days after the exceedence occurs.~~
- 2) ~~Any owner or operator of a printing line subject to the limitations of subsection (a) of this Section and complying by means of subsection (a)(1) of this Section shall comply with the following:~~
- A) ~~By a date consistent with Section 218.106 of this Part, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing printing line from subsection (a)(2) to (a)(1) of this Section, perform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with subsection (a)(1) of this Section on and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date;~~
  - B) ~~On and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date, collect and record the following information each day for each printing line and maintain the information at the source for a period of three years:~~

- i) ~~Control device monitoring data;~~
  - ii) ~~A log of operating time for the control device, monitoring equipment and the associated printing line; and~~
  - iii) ~~A maintenance log for the control device and monitoring equipment detailing all routine and nonroutine maintenance performed including dates and duration of any outages;~~
- C) ~~On and after a date consistent with Section 218.106 of this Part, notify the Agency in the following instances:~~
- i) ~~Any violation of subsection (a)(1) of this Section shall be reported to the Agency, in writing, within 30 days following the occurrence of the violation;~~
  - ii) ~~Any record showing a violation of subsection (a)(1) of this Section shall be reported by sending a copy of such record to the Agency within 30 days following the occurrence of the violation; and~~
  - iii) ~~At least 30 calendar days before changing the method of compliance with subsection (a) of this Section from subsection (a)(1) to (a)(2) of this Section, the owner or operator shall comply with all requirements of subsection (b)(3)(A) of this Section. Upon changing the method of compliance with subsection (a) of this Section from subsection (a)(1) to (a)(2) of this Section, the owner or operator shall comply with all requirements of subsection (b)(3) of this Section.~~
- 3) ~~Any owner or operator of a printing line subject to the limitations of subsection (a) of this Section and complying by means of subsection (a)(2) of this Section shall:~~
- A) ~~By a date consistent with Section 218.106 of this Part, or upon initial start up of a new printing line, or upon changing the method of compliance for an existing printing line from subsection (a)(1) to (a)(2) of this Section, perform all tests and submit to the Agency and the USEPA the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with subsection (a)(2) of this Section on and after a date consistent with Section 218.106 of this Part, or on and after the initial start up date;~~

- B) ~~On and after a date consistent with Section 218.106 of this Part, or on and after the initial start-up date, collect and record the following information each day for each printing line and maintain the information at the source for a period of three years:~~
- i) ~~The VOM content of the fountain solution used each day on each printing line;~~
  - ii) ~~A log of operating time for the control device and the associated printing line; and~~
  - iii) ~~A maintenance log for the control device detailing all routine and non-routine maintenance performed including dates and duration of any outages;~~
- C) ~~On and after a date consistent with Section 218.106 of this Part, notify the Agency in the following instances:~~
- i) ~~Any violation of subsection (a)(2) shall be reported to the Agency, in writing, within 30 days following the occurrence of the violation;~~
  - ii) ~~Any record showing a violation of subsection (a)(2) of this Section shall be reported by sending a copy of such record to the Agency within 30 days following the occurrence of the violation; and~~
  - iii) ~~At least 30 calendar days before changing the method of compliance with subsection (a) of this Section from subsection (a)(2) to (a)(1) of this Section, the owner or operator shall comply with all requirements of subsection (b)(2)(A) of this Section. Upon changing the method of compliance with subsection (a) of this Section from subsection (a)(2) to (a)(1) of this Section, the owner or operator shall comply with all requirements of subsection (b)(2) of this Section.~~
- e) ~~Compliance Schedule. Every owner or operator of a heatset web offset lithographic printing line shall comply with the applicable requirements of subsections (a) and (b) of this Section in accordance with the applicable compliance schedule specified in subsections (c)(1), (c)(2), or (c)(3) of this Section:~~
- 1) ~~No owner or operator of a heatset web offset lithographic printing line which is exempt from the limitations of subsection (a) of this Section because of the criteria in Section 218.405 (a) of this Subpart shall operate~~

~~said printing 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 218.405(a) and 218.406(b)(1) of this Subpart.~~

- 2) ~~No owner or operator of a heatset web offset lithographic printing line complying by means of subsection (a)(1) of this Section shall operate said printing 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, subsections (a)(1), (a)(3), (a)(4) and (b)(2) of this Section.~~
- 3) ~~No owner or operator of a heatset web offset lithographic printing line complying by means of subsection (a)(2) of this Section shall operate said printing 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, subsections (a)(2), (a)(3), (a)(4) and (b)(3) of this Section.~~

(Source: Repealed at 34 Ill. Reg.\_\_\_\_, effective\_\_\_\_)

#### **Section 218.407 Emission Limitations and Control Requirements for Lithographic Printing Lines ~~On and After March 15, 1996~~**

- a) ~~On and after March 15, 1996, no~~No owner or operator of lithographic printing line(s) subject to the requirements of this Subpart shall:
  - 1) Cause or allow the operation of any heatset web offset lithographic printing line unless:
    - A) The total VOM content in the as-applied fountain solution meets one of the following conditions:
      - i) 1.6 percent or less, by weight~~volume~~;
      - ii) 3 percent or less, by weight~~volume~~, and the temperature of the fountain solution is maintained below 15.6°C (60° F), measured at the reservoir or the fountain tray; or
      - iii) 5 percent or less, by weight~~volume~~, and the as-applied fountain solution contains no alcohol;
    - B) The air pressure in the dryer is maintained lower than the air pressure of the press room, such that air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating;

- C) An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced as follows:
- i) Prior to May 1, 2010, by 90 percent, by weight, or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon); and
  - ii) On and after May 1, 2010, by at least 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010; by at least 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon);
- D) ~~The afterburner complies with all monitoring provisions specified in Section 218.410(c) of this Subpart is equipped with the applicable monitoring equipment specified in Section 218.105(d)(2) of this Part and the monitoring equipment is installed, calibrated, operated, and maintained according to manufacturer's specifications at all times when the afterburner is in use; and~~
- E) The afterburner is operated at all times when the printing line is in operation, except the afterburner may be shut down between November 1 and April 1 as provided in Section 218.107 of this Part;
- 2) Cause or allow the operation of any non-heatset web offset lithographic printing line unless the VOM content of the as-applied fountain solution is 5 percent or less, by weight~~volume~~, and the as-applied fountain solution contains no alcohol;
  - 3) Cause or allow the operation of any sheet-fed offset lithographic printing line unless:
    - A) The VOM content of the as-applied fountain solution is 5 percent or less, by weight~~volume~~; or
    - B) The VOM content of the as-applied fountain solution is 8.5 percent or less, by weight~~volume~~, and the temperature of the fountain solution is maintained below 15.6° C (60° F), measured at the reservoir or the fountain tray;
  - 4) Cause or allow the use of a cleaning solution on any lithographic printing line unless:

- A) The VOM content of the as-used cleaning solution is less than or equal to:
    - i) 30 percent, by weight; or
    - ii) On and after May 1, 2010, for owners or operators of sources that meet the applicability criteria in Section 218.405(c)(3) and do not certify pursuant to Section 218.411(g)(1)(B) that the source will not make use of any of the exclusions in Section 218.405(c)(3), 70 percent, by weight; or
  - B) The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
- 5) Cause or allow VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line to be kept, stored or disposed of in any manner other than in closed containers, except when specifically in use.
- b) An owner or operator of a heatset web offset lithographic printing line subject to the requirements of subsection (a)(1)(C) of this Section may use a control device other than an afterburner, if:
- 1) The control device reduces VOM emissions from the press dryer exhaust(s) as follows:
    - A) Prior to May 1, 2010, by at least 90 percent, by weight, or to a maximum control device exhaust outlet concentration of 20 ppmv (as carbon); and
    - B) On and after May 1, 2010:
      - i) By at least 90 percent, by weight, for control devices first constructed at the source prior to January 1, 2010;
      - ii) By at least 95 percent, by weight, for control devices first constructed at the source on or after January 1, 2010; or
      - iii) To a maximum control device exhaust outlet concentration of 20 ppmv (as carbon);
  - 2) The owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the control device; and

- 3) The use of the control device with testing, monitoring, and recordkeeping in accordance with this plan is approved by the Agency and USEPA as federally enforceable permit conditions.

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

**~~Section 218.408 Compliance Schedule for Lithographic Printing On and After March 15, 1996~~**

- a) ~~Every owner or operator of a lithographic printing line subject to one or more of the control requirements of Section 218.407 of this Subpart shall comply with the applicable requirements of Sections 218.407 through 218.411 of this Subpart on and after March 15, 1996, or upon initial start up, whichever is later.~~
- b) ~~No owner or operator of a lithographic printing line which is exempt from the limitations of Section 218.407 of this Subpart because of the criteria in Section 218.405(d) of this Subpart, shall operate said printing line on or after March 15, 1996, unless the owner or operator has complied with, and continues to comply with, Sections 218.405(d) and 218.411(a) of this Subpart.~~

(Source: Repealed at 34 Ill. Reg.\_\_\_\_, effective\_\_\_\_)

**~~Section 218.409 Testing for Lithographic Printing On and After March 15, 1996~~**

- a) Testing to demonstrate compliance with the requirements of Section 218.407 of this Subpart shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Subpart. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing.
- b) The methods and procedures of Section 218.105(d) and (f) shall be used for testing to demonstrate compliance with the requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as follows:
  - 1) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 218.112 of this Part. The sampling sites for determining efficiency in reducing VOM from the dryer exhaust shall be located between the dryer exhaust and the control device inlet, and between the outlet of the control device and the exhaust to the atmosphere;
  - 2) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 218.112 of this Part;



- 3) To determine the VOM concentration of the exhaust stream entering and exiting the control device, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 218.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:
    - A) The allowable outlet concentration of VOM from the control device is less than 50 ppmv, as carbon;
    - B) The VOM concentration at the inlet of the control device and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and
    - C) Due to the high efficiency of the control device, the anticipated VOM concentration at the control device exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;
  - 4) Notwithstanding the criteria or requirements in Method 25 which specifies a minimum probe temperature of 129° C (265° F), the probe must be heated to at least the gas stream temperature of the dryer exhaust, typically close to 176.7°C (350° F);
  - 5) During testing, the printing line(s) shall be operated at representative operating conditions and flow rates; and
  - 6) During testing, an air flow direction indicating device, such as a smoke stick, shall be used to demonstrate 100 percent emissions capture efficiency for the dryer in accordance with Section 218.407(a)(1)(B) of this Subpart.
- c) Testing to demonstrate compliance with the VOM content limitations in Section 218.407(a)(1)(A), (a)(2), (a)(3) and (a)(4)(A) of this Subpart, and to determine the VOM content of fountain solutions, fountain solution additives, cleaning solvents,

cleaning solutions, and inks (pursuant to the requirements of Section 218.411(a)(1)(B) ), (b)(1)(B), or (b)(2)(B) of this Subpart, as applicable), shall be conducted upon request of the Agency<sup>±</sup>, as follows:

- 1) The applicable test methods and procedures specified in Section 218.105(a) of this Part shall be used; provided, however, Method 24, incorporated by reference at Section 218.112 of this Part, shall be used to demonstrate compliance; or
  - 2) The manufacturer's specifications for VOM content for fountain solution additives, cleaning solvents, and inks may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part; provided, however, Method 24 shall be used to determine compliance.
- d) Testing to demonstrate compliance with the requirements of Section 218.407(b) of this Subpart shall be conducted as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 218.407(b) of this Subpart.
- e) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 218.110 of this Part.

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

#### **Section 218.410 Monitoring Requirements for Lithographic Printing**

- a) Fountain Solution Temperature.
- 1) The owner or operator of any lithographic printing line(s) relying on the temperature of the fountain solution to demonstrate compliance shall install, maintain, and continuously operate a temperature monitor of the fountain solution in the reservoir or fountain tray, as applicable.
  - 2) The temperature monitor must be capable of reading with an accuracy of 1°C or 2°C, and must be attached to an automatic, continuous recording device such as a strip chart, recorder, or computer, with at least the same accuracy, that is installed, calibrated and maintained in accordance with the manufacturer's specifications. If the automatic, continuous recording device malfunctions, the owner or operator shall record the temperature of the fountain solution at least once every two operating hours. The automatic, continuous recording device shall be repaired or replaced as soon as practicable.

- b) Fountain Solution VOM Content. The owner or operator of any lithographic printing line(s) subject to Section 218.407(a)(1)(A), (a)(2) or (a)(3) of this Subpart shall:
- 1) For a fountain solution to which VOM is not added automatically:
    - A) Maintain records of the VOM content of the fountain solution in accordance with Section 218.411(ee)(2)(C); or
    - B) Take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determine compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:
      - i) With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications, against measurements performed to determine compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or
      - ii) With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;
  - 2) For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. Records must be

retained of the VOM content of the fountain solution in accordance with Section 218.411(ee)(2)(D) of this Subpart. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications.

c) Afterburners For Heatset Web Offset Lithographic Printing Line(s).

If an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to Section 218.407(a)(1)(C) of this Subpart shall:

- 1) Install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3° C or 5° F on the afterburner in accordance with Section 218.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the afterburner is operating; and
- 2) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor.

d) Other Control Devices for Heatset Web Offset Lithographic Printing Line(s). If a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to this Subpart shall install, maintain, calibrate and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 218.407(b) of this Subpart.

e) Cleaning Solution.

- 1) The owner or operator of any lithographic printing line relying on the VOM content of the cleaning solution to comply with Section 218.407(a)(4)(A) of this Subpart must:
  - A) For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):
    - i) Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and
    - ii) Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or

other non-VOM), as applied, comply with Section 218.407(a)(4)(A) of this Subpart;

- B) For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in Section 218.411(~~f~~)(2) of this Subpart.
- 2) The owner or operator of any lithographic printing line relying on the vapor pressure of the cleaning solution to comply with Section 218.407(a)(4)(B) of this Subpart must keep records for such cleaning solutions used on any such line(s) as set forth in Section 218.411(~~f~~)(2)(C) of this Subpart.

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

### **Section 218.411 Recordkeeping and Reporting for Lithographic Printing**

- a) Exempt units prior to May 1, 2010. An owner or operator of lithographic printing line(s) exempt from the limitations of Section 218.407 of this Subpart prior to May 1, 2010, because of the criteria in Section 218.405(~~b~~) of this Subpart shall comply with the following:
  - 1) ~~By March 15, 1996, Upon~~ upon initial start-up of a new lithographic printing line, and upon modification of a lithographic printing line, submit a certification to the Agency that includes:
    - A) A declaration that the source is exempt from the control requirements in Section 218.407 of this Part because of the criteria in Section 218.405(~~b~~) of this Subpart;
    - B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, as follows:
      - i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;

- ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the tests methods and procedures set forth in Section 218.409(c) of this Subpart shall be used;
  - iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv) To determine VOM emissions from fountain solutions and cleaning solvents used on lithographic printing line(s) at the source, no retention factor is used;
- C) Either a declaration that the source, through federally enforceable permit conditions, has limited its maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with heatset web offset printing lines) at the source to no more than 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices or calculations which demonstrate that the source's total maximum theoretical emissions of VOM do not exceed 90.7 Mg/yr (100 TPY). ~~To determine the source's total maximum theoretical emissions for the purposes of this subsection, the owner or operator shall use the calculations set forth in Section 218.406(b)(1)(A)(ii) of this Subpart; and~~ Total maximum theoretical emissions of VOM for a heatset web offset lithographic printing source is the sum of maximum theoretical emissions of VOM from each heatset web offset lithographic printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year in the absence of air pollution control equipment for each heatset web offset lithographic printing line at the source:

$$E_p = (R \times A \times B) + (C \times D) + 1095 (F \times G \times H)$$

Where:

- E<sub>p</sub> = Total maximum theoretical emissions of VOM from one heatset web offset printing line in units of kg/yr (lb/yr);
- A = Weight of VOM per volume of solids of ink with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal) of solids;
- B = Total volume of solids for all inks that can potentially be applied each year on the printing line in units of 1/yr (gal/yr). The method by which the owner or operator accurately calculated the volume of each ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;
- C = Weight of VOM per volume of fountain solution with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal);
- D = The total volume of fountain solution that can potentially be used each year on the printing line in units of 1/yr (gal/yr). The method by which the owner or operator accurately calculated the volume of each fountain solution used and the amount that can potentially be used each year on the printing line shall be described in the certification to the Agency;
- F = Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of kg/l (lb/gal) of such material;
- G = The greatest volume of cleanup material or solvent used in any 8-hour period; and
- H = The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.
- R = The multiplier representing the amount of VOM not retained in the substrate being used. For paper, R = 0.8. For metal, plastic, or other impervious substrates, R = 1.0;

D) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly

conducted in accordance with Section 218.409(c)(1) of this Subpart;

2) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. Such notification shall include a copy of all records of such event.

b) Exempt units on and after May 1, 2010.

1) Lithographic printing lines exempt pursuant to Section 218.405(c)(2). By May 1, 2010, or upon initial start-up of a new lithographic printing line, whichever is later, and upon modification of a lithographic printing line, an owner or operator of lithographic printing line(s) exempt from the limitations in Section 218.407 of this Subpart because of the criteria in Section 218.405(c)(2) of this Subpart shall submit a certification to the Agency that includes the information specified in either subsections (b)(1)(A), (b)(1)(B), and (b)(1)(D) of this Section, or subsections (b)(1)(A) and (b)(1)(C) of this Section, as applicable. An owner or operator complying with subsection (b)(1)(B) shall also comply with the requirements in subsection (b)(1)(E) of this Section. An owner or operator complying with subsection (b)(1)(C) shall also comply with the requirements in subsection (b)(1)(F) of this Section:

A) A declaration that the source is exempt from the requirements in Section 218.407 of this Part because of the criteria in Section 218.405(c)(2) of this Subpart;

B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing line(s) (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing line(s)) at the source do not equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, as follows:

i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;



- ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the test methods and procedures set forth in Section 218.409(c) of this Subpart shall be used;
  - iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv) To determine VOM emissions from cleaning solutions used on lithographic printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor is used;
- C) As an alternative to the calculations in subsection (b)(1)(B), above, a statement that the source uses less than the amount of material specified in subsections (b)(1)(C)(i) or (ii), below, as applicable, during each calendar month. A source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM based upon compliance with such material use limitations. If the source exceeds this amount of material use in a given calendar month, the owner or operator must, within 15 days of the end of that month, complete the emissions calculations of subsection (b)(1)(B) to determine daily emissions for applicability purposes. If the source ever exceeds this amount of material use for six consecutive calendar months, it is no longer eligible to use this subsection as an alternative to the calculations in subsection (b)(1)(B). If a source has both heatset web offset and either nonheatset web offset or sheetfed lithographic printing operations, or has all three types of

printing operations, the owner or operator may not make use of this alternative and must use the calculations in subsection (b)(1)(B).

- i) The sum of all sheetfed and nonheatset web offset lithographic printing operations at the source 242.3 liters (64 gallons) of cleaning solvent and fountain solution additives, combined; or
  - ii) The sum of all heatset web offset lithographic printing operations at the source 204.1 kg (450 lbs) of ink, cleaning solvent, and fountain solution additives, combined.
- D) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 218.409(c)(1) of this Subpart;
- E) For sources complying with subsection (b)(1)(B) of this Section, notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. If such emissions of VOM at the source equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), the source shall comply with the requirements in subsection (b)(2) of this Section.
- F) For sources complying with subsection (b)(1)(C) of this Section, comply with the following:
- i) Maintain material use records showing that the source uses less than the amount of material specified in subsections (b)(1)(C)(i) and (b)(1)(C)(ii) during each calendar month, or, if the source exceeds the material use limitations, records showing that the source exceeded the limitations but did not emit 6.8 kg/day (15 lbs/day) or more of VOM;
  - ii) Notify the Agency in writing if the source exceeds the material use limitations for six consecutive calendar months, or if the source changes its method of compliance from subsection (b)(1)(C) to subsection (b)(1)(B) of this Section, within 30 days after the event occurs;

- 2) Heatset web offset lithographic printing lines exempt pursuant to Section 218.405(c)(1) but not exempt pursuant to Section 218.405(c)(2). By May 1, 2010, or upon initial start-up of a new heatset web offset lithographic printing line, whichever is later, and upon modification of a heatset web offset lithographic printing line, an owner or operator of heatset web offset lithographic printing line(s) that are exempt from the limitations in Section 218.407 of this Subpart pursuant to the criteria in Section 218.405(c)(1) of this Subpart, but that are not exempt pursuant to the criteria in Section 218.405(c)(2) of this Subpart, shall submit a certification to the Agency that includes the information specified in subsections (b)(2)(A) through (b)(2)(C) of this Section. Such owner or operator shall also comply with the requirements in subsection (b)(2)(D) of this Section:
- A) A declaration that the source is exempt from the control requirements in Section 218.407 of this Part because of the criteria in Section 218.405(c)(1) of this Subpart, but is not exempt pursuant to the criteria in Section 218.405(c)(2) of this Subpart;
- B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, as follows (the following methodology shall also be used to calculate whether a source exceeds 45.5 kg/day (100 lbs/day) for purposes of determining eligibility for the exclusions set forth in Section 218.405(c)(3), in accordance with Section 218.411(g)(2)(A)(i):
- i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
- ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the tests methods and procedures set forth in Section 218.409(c) of this Subpart shall be used;
- iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an

impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s).

iv) To determine VOM emissions from cleaning solvents used on lithographic printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from cleaning solution in shop towels if the VOM composite vapor pressure of such cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor is used;

C) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 218.409(c)(1) of this Subpart;

D) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs.

c2) Unless complying with subsections (b)(1)(C) and (b)(1)(F) of this Section, an owner or operator of lithographic printing line(s) subject to the requirements of subsection (a) or (b) of this Section shall ~~On and after March 15, 1996,~~ collect and record either the information specified in subsection (c)(1) or (c)(2) ~~(a)(2)(A) or (a)(2)(B)~~ of this Section for all lithographic printing lines at the source:

1A) Standard recordkeeping, including the following:

Ai) The name and identification of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;

- Bii) A daily record which shows whether a lithographic printing line at the source was in operation on that day;
- Ciii) The VOM content and the volume of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
- Div) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; ~~and~~
- Eiv) The VOM emissions in lbs/day for the month, calculated in accordance with Section 218.411(a)(1)(B), 218.411(b)(1)(B), or 218.411(b)(2)(B) of this Subpart, as applicable;

2B) Purchase and inventory recordkeeping, including the following:

- Ai) The name, identification, and VOM content of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
- Bii) Inventory records from the beginning and end of each month indicating the total volume of each fountain solution additive, lithographic ink, and cleaning solvent to be used on any lithographic printing line at the source;
- Ciii) Monthly purchase records for each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line at the source;
- Div) A daily record which shows whether a lithographic printing line at the source was in operation on that day;
- Eiv) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to subsections (c)(2)(A), (c)(2)(B), and (c)(2)(C)(a)(2)(B)(i), (a)(2)(B)(ii) and (a)(2)(B)(iii) of this Section; ~~and~~

Fvi) The VOM emissions in lbs/day for the month, calculated in accordance with Section 218.411(a)(1)(B), 218.411(b)(1)(B), or 218.411(b)(2)(B) of this Subpart, as applicable;

~~3)~~ ~~On and after March 15, 1996, notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. Such notification shall include a copy of all records of such event.~~

db) An owner or operator of a heatset web offset lithographic printing line(s) subject to the control requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart shall comply with the following:

- 1) By ~~May 1, 2010~~ ~~March 15, 1996~~, upon initial start-up of a new printing line, and upon initial start-up of a new control device for a heatset web offset printing line, submit a certification to the Agency that includes the following:
  - A) An identification of each heatset web offset lithographic printing line at the source;
  - B) A declaration that each heatset web offset lithographic printing line is in compliance with the requirements of Section 218.407 (a)-(1) (B), (a)-(1)-(C), (a)-(1)-(D) and (a)(1)-(E) or (b) of this Subpart, as appropriate;
  - C) The type of afterburner or other approved control device used to comply with the requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart and the date that such device was first constructed at the source;
  - D) The control requirements in Section 218.407(a)(1)(C) or (b)(1) of this Subpart with which the lithographic printing line is complying;
  - E) The results of all tests and calculations necessary to demonstrate compliance with the control requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as applicable; and
  - F) A declaration that the monitoring equipment required under Section 218.407(a)(1)(D) or (b) of this Subpart, as applicable, has been properly installed and calibrated according to manufacturer's specifications;

- 2) If testing of the afterburner or other approved control device is conducted pursuant to Section 218.409(b) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
- A) A declaration that all tests and calculations necessary to demonstrate whether the lithographic printing line(s) is in compliance with Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as applicable, have been properly performed;
  - B) A statement whether the lithographic printing line(s) is or is not in compliance with Section 218.407(a)(1)(C) or (b)(1) of this Subpart, as applicable; and
  - C) The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with Section 218.410(c) or (d) of this Subpart, as applicable;
- 3) ~~On and after March 15, 1996,~~ Except as provided in subsection (d)(3)(D)(ii) of this Section, collect and record daily the following information for each heatset web offset lithographic printing line subject to the requirements of Section 218.407(a)(1)(C) or (b)(1) of this Subpart:
- A) Afterburner or other approved control device monitoring data in accordance with Section 218.410(c) or (d) of this Subpart, as applicable;
  - B) A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;
  - C) A maintenance log for the afterburner or other approved control device and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages; and
  - D) A log detailing checks on the air flow direction or air pressure of the dryer and press room to ~~ensure~~insure compliance with the requirements of Section 218.407(a)(1)(B) of this Subpart as follows:
    - i) Prior to May 1, 2010, at least once per 24-hour period while the line is operating; and

- ii) On and after May 1, 2010, at least once per calendar month while the line is operating;
- 4) ~~On and after March 15, 1996, Notify~~ notify the Agency in writing of any violation of Section 218.407(a)(1)(C) or (b)(1) of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;
  - 5) If changing its method of compliance between subsections (a)(1)(C) and (b) of Section 218.407 of this Subpart, certify compliance for the new method of compliance in accordance with subsection (b)(1) of this Section at least 30 days before making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the requirements of Section 218.407(a)(1)(B), (a)(1)(C), (a)(1)(D) and (a)(1)(E) of this Subpart, or Section 218.407(b) of this Subpart, as applicable.
- ee) An owner or operator of a lithographic printing line subject to Section 218.407(a)(1)(A), (a)(2), or (a)(3) of this Subpart, shall:
- 1) By ~~March 15, 1996,~~ May 1, 2010, and upon initial start-up of a new lithographic printing line, certify to the Agency that fountain solutions used on each lithographic printing line will be in compliance with the applicable VOM content limitation. Such certification shall include:
    - A) Identification of each lithographic printing line at the source, by type, e.g., heatset web offset, non-heatset web offset, or sheet-fed offset;
    - B) Identification of each centralized fountain solution reservoir and each lithographic printing line that it serves;
    - C) A statement that the fountain solution will comply with the VOM content limitations in Section 218.407(a)(1)(A), (a)(2), or (a)(3), as applicable;~~The VOM content limitation with which each fountain solution will comply;~~
    - D) Initial documentation that each type of fountain solution will comply with the applicable VOM content limitation(s), including copies of manufacturer's specifications, test results, if any, formulation data and calculations;
    - E) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitation, e.g., a refractometer, hydrometer, conductivity meter, or recordkeeping



procedures with detailed description of the compliance methodology; and

F) A sample of the records that will be kept pursuant to Section 218.411(2) of this Subpart.

2) ~~On and after March 15, 1996, Collect~~ collect and record the following information for each fountain solution:

A) The name and identification of each batch of fountain solution prepared for use on one or more lithographic printing lines, the lithographic printing line(s) or centralized reservoir using such batch of fountain solution, and the applicable VOM content limitation for the batch;

B) If an owner or operator uses a hydrometer, refractometer, or conductivity meter, pursuant to Section 218.410(b)(1)(B), to demonstrate compliance with the applicable VOM content limit in Section 218.407(a)(1)(A), (a)(2), or (a)(3) of this Subpart:

i) The date and time of preparation, and each subsequent modification, of the batch;

ii) The results of each measurement taken in accordance with Section 218.410(b) of this Subpart;

iii) Documentation of the periodic calibration of the meter in accordance with the manufacturer's specifications, including date and time of calibration, personnel conducting, identity of standard solution, and resultant reading; and

iv) Documentation of the periodic temperature adjustment of the meter, including date and time of adjustment, personnel conducting and results;

C) If the VOM content of the fountain solution is determined pursuant to Section 218.410(b)(1)(A) of this Subpart, for each batch of as-applied fountain solution:

i) Date and time of preparation and each subsequent modification of the batch;

ii) Volume or weight, as applicable, and VOM content of each component used in, or subsequently added to, the fountain solution batch;

- iii) Calculated VOM content of the as-applied fountain solution; and
  - iv) Any other information necessary to demonstrate compliance with the applicable VOM content limits in Section 218.407(a)(1)(A), (a)(2) and (a)(3) of this Subpart, as specified in the source's operating permit;
- D) If the VOM content of the fountain solution is determined pursuant to Section 218.410(b)(2) of this Subpart, for each setting:
- i) VOM content limit corresponding to each setting;
  - ii) Date and time of initial setting and each subsequent setting;
  - iii) Documentation of the periodic calibration of the automatic feed equipment in accordance with the manufacturer's specifications; and
  - iv) Any other information necessary to demonstrate compliance with the applicable VOM content limits in Sections 218.407(a)(1)(A), (a)(2) and (a)(3) of this Subpart, as specified in the source's operating permit.
- E) If the owner or operator relies on the temperature of the fountain solution to comply with the requirements in Section 218.407(a)(1)(A)(ii) or (a)(3)(B) of this Subpart:
- i) The temperature of the fountain solution at each printing line, as monitored in accordance with Section 218.410(a); and
  - ii) A maintenance log for the temperature monitoring devices and automatic, continuous temperature recorders detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
- 3) Notify the Agency in writing of any violation of Section 218.407 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation, ~~and~~
- 4) ~~If changing its method of demonstrating compliance with the applicable VOM content limitations in Section 218.407 of this Subpart, or changing the method of demonstrating compliance with the VOM content limitations for fountain solutions pursuant to Section 218.409 of this~~

~~Subpart, certify compliance for such new method(s) in accordance with subsection (c)(1) of this Section within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 218.407 of this Subpart.~~

- ~~f~~d) For lithographic printing line cleaning operations, an owner or operator of a lithographic printing line subject to the requirements of Section 218.407 of this Subpart shall:
- 1) By ~~May 1, 2010~~~~March 15, 1996~~, and upon initial start-up of a new lithographic printing line, certify to the Agency that all cleaning solutions, other than those excluded pursuant to Section 218.405(c)(3)(C), and the handling of all cleaning materials, will be in compliance with the requirements of Section 218.407(a)(4)(A) or (a)(4)(B) and (a)(5) of this Subpart, and such certification shall also include:
    - ~~A)~~ A) Identification of each ~~VOM containing cleaning solution used on each lithographic printing line;~~
    - ~~AB)~~ B) A statement that the cleaning solution will comply with the limitations in Section 218.407(a)(4);~~The limitation with which each VOM containing cleaning solution will comply, i.e., the VOM content or vapor pressure;~~
    - ~~C)~~ C) Initial documentation that each VOM containing cleaning solution will comply with the applicable limitation, including copies of manufacturer's specifications, test results, if any, formulation data and calculations;
    - ~~BD)~~ D) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;
    - ~~CE)~~ E) A sample of the records that will be kept pursuant to Section 218.411(~~f~~d)(2) of this Subpart; and
    - ~~DF)~~ F) A description of the practices that ~~ensure~~assure that VOM-containing cleaning materials are kept in closed containers;
  - 2) ~~On and after March 15, 1996,~~ Collect~~collect~~ and record the following information for each cleaning solution used on each lithographic printing line:
    - A) For each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section

218.407(a)(4)(A) of this Subpart and which is prepared at the source with automatic equipment:

- i) The name and identification of each cleaning solution;
- ii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 218.409(c) of this Subpart;
- iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
- iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
- v) The VOM content of the as-used cleaning solution, with supporting calculations; and
- vi) A calibration log for the automatic equipment, detailing periodic checks;

B) For each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 218.407(a)(4)(A) of this Subpart, and which is not prepared at the source with automatic equipment:

- i) The name and identification of each cleaning solution;
- ii) Date and time of preparation, and each subsequent modification, of the batch;
- iii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 218.409(c) of this Subpart;
- iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
- v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's

specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part;

- C) For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Section 218.407(a)(4)(B) of this Subpart:
- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 218.409(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 218.105(a) and 218.110 of this Part;
  - iv) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - v) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Section 218.409(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 218.105(a) and 218.110 of this Part;
- D) The date, time, and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any;
- 3) ~~On and after March 15, 1996, Notify~~ notify the Agency in writing of any violation of Section 218.407 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation. ~~;~~ and

- 4) ~~If changing its method of demonstrating compliance with the requirements of Section 218.407(a)(4) of this Subpart, or changing between automatic and manual methods of preparing cleaning solutions, certify compliance for such new method in accordance with subsection (d)(1) of this Section, within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 218.407(a)(4) of this Subpart.~~
- g) The owner or operator of lithographic printing line(s) subject to one or more of the exclusions set forth in Section 218.405(c)(3) shall:
- 1) By May 1, 2010, or upon initial start-up of a new lithographic printing line that is subject to one or more of the exclusions set forth in Section 218.405(c)(3), whichever is later, submit a certification to the Agency that includes either:
- A) A declaration that the source is subject to one or more of the exclusions set forth in Section 218.405(c)(3) and a statement indicating which such exclusions apply to the source; or
- B) A declaration that the source will not make use of any of the exclusions set forth in Section 218.405(c)(3);
- 2) Unless the source has certified in accordance with subsection (g)(1)(B) of this Section that it will not make use of any of the exclusions set forth in Section 218.405(c)(3):
- A) Collect and record the following information for all lithographic printing lines at the source:
- i) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, determined in accordance with the calculations in Section 218.411(b)(2)(B) of this Subpart;
- ii) The amount of cleaning materials used on lithographic printing lines at the source that does not comply with the cleaning material limitations in Section 218.407(a)(4) of this Subpart.

- B) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs.
- 3) If changing from utilization of the exclusions set forth in Section 218.405(c)(3) to opting out of such exclusions pursuant to subsection (g)(1)(B) of this Section, or if there is a change at the source such that the exclusions no longer apply, certify compliance in accordance with subsection (g)(1)(B) of this Section within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 218.407 of this Subpart.
- 4) If changing from opting out of the exclusions set forth in Section 218.405(c)(3) pursuant to subsection (g)(1)(B) of this Section to utilization of such exclusions, certify compliance in accordance with subsection (g)(1)(A) of this Section within 30 days after making such change.
- he) The owner or operator shall maintain all records required by this Section at the source for a minimum period of three years and shall make all records available to the Agency upon request.
- i) Provisions for calculation of emissions from heatset web offset lithographic printing operations. To calculate VOM emissions from heatset web offset lithographic printing operations for purposes other than the applicability thresholds specified in Section 218.405 of this Subpart, sources may use the following emission adjustment factors (for Annual Emissions Reports or permit limits, for example):
- 1) A factor of 0.80 may be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s);
- 2) To determine VOM emissions from fountain solutions that contain no alcohol, an emission adjustment factor may be used to account for carryover into the dryer, except when using an impervious substrate. The VOM emitted from the fountain solution shall be calculated using the following equation:

$$\text{VOM}_{fs} = 0.30 \times \text{VOM}_{tot} + (0.70 \times \text{VOM}_{tot}) \times (1-DE)$$

Where: \_\_\_\_\_

VOM<sub>tot</sub> = Total VOM in the fountain solution;

VOM<sub>fs</sub> = VOM emitted from the fountain solution;

DE = Destruction efficiency of the control device on the associated dryer, in decimal form (i.e., 95% control is represented as 0.95). If no control device is present, DE = 0;

For fountain solutions that contain alcohol, impervious substrates such as metal or plastic, or non-heatset lithographic presses, no emission adjustment factor is used;

- 3) To determine VOM emissions from cleaning solutions used on heatset web offset lithographic printing line(s) at the source, an emission adjustment factor of 0.50 may be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. To determine VOM emissions from automatic blanket wash solution with a VOM composite vapor pressure of less than 10 mmHg measured at 20°C (68°F), an emission adjustment factor may be used to account for carryover into the dryer, except when using an impervious substrate. The VOM emitted from the automatic blanket wash solution shall be calculated using the following equation.

$$\text{VOM}_{\text{bw}} = 0.60 \times \text{VOM}_{\text{tot}} + (0.40 \times \text{VOM}_{\text{tot}}) \times (1 - \text{DE})$$

Where: \_\_\_\_\_

VOM<sub>tot</sub> = Total VOM in the blanket wash;

VOM<sub>bw</sub> = VOM emitted from the blanket wash;

DE = Destruction efficiency of the control device on the associated dryer, in decimal form (i.e., 95% control is represented as 0.95). If no control device is present, DE = 0;

For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F), for shop towels that are not kept in closed containers, and for impervious substrates such as metal or plastic, no emission adjustment factor is used.

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



**Section 218.412 Letterpress Printing Lines: Applicability**

- a) Except as provided in subsection (b) of this Section, on and after May 1, 2010, the limitations in Sections 218.413 through 218.416 of this Subpart shall apply to:
- 1) All heatset web letterpress printing line(s) at a source if all heatset web letterpress printing line(s) (including solvents used for cleanup operations associated with heatset web letterpress printing line(s)) at the source have a total potential to emit 22.7 Mg (25 tons) or more of VOM per year; and
  - 2) All letterpress printing line(s) at a source where the combined emissions of VOM from all letterpress printing line(s) at the source (including solvents used for cleanup operations associated with the letterpress printing line(s)) ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, calculated in accordance with Section 218.417(b)(1)(B).
- b) Notwithstanding subsection (a) of this Section, the requirements of Section 218.413(a)(2) of this Subpart shall not apply to up to 416.3 liters (110 gallons) per year of cleaning materials used on letterpress printing lines at a subject source;
- c) On and after May 1, 2010, the recordkeeping and reporting requirements in Section 218.417 of this Subpart shall apply to all owners or operators of letterpress printing line(s).
- d) If a letterpress printing line at a source is or becomes subject to one or more of the limitations in Section 218.413 of this Subpart, the letterpress printing line(s) at the source are always subject to the applicable provisions of this Subpart.

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

**Section 218.413 Emission Limitations and Control Requirements for Letterpress Printing Lines**

- a) No owner or operator of letterpress printing line(s) subject to the requirements of this Subpart shall:
- 1) Cause or allow the operation of any heatset web letterpress printing line that meets the applicability requirements of Section 218.412(a)(1) unless:
    - A) The air pressure in the dryer is maintained lower than the air pressure of the press room, such that air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating;

- B) An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced as follows:
    - i) By 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010;
    - ii) By 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or
    - iii) To a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon);
  - C) The afterburner complies with all monitoring provisions specified in Section 218.416(a) of this Subpart; and
  - D) The afterburner is operated at all times when the printing line is in operation, except the afterburner may be shut down between November 1 and April 1 as provided in Section 218.107 of this Part;
- 2) Cause or allow the use of a cleaning solution on any letterpress printing line unless:
- A) The VOM content of the as-used cleaning solution is less than or equal to 70 percent, by weight; or
  - B) The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
- 3) Cause or allow VOM-containing cleaning materials, including used cleaning towels, associated with any letterpress printing line to be kept, stored, or disposed of in any manner other than in closed containers, except when specifically in use.
- b) An owner or operator of a heatset web letterpress printing line subject to the requirements of subsection (a)(1)(B) of this Section may use a control device other than an afterburner, if:
- 1) The control device reduces VOM emissions from the press dryer exhaust(s) as follows:
    - A) By 90 percent, by weight, for control devices first constructed at the source prior to January 1, 2010;

- B) By 95 percent, by weight, for control devices first constructed at the source on or after January 1, 2010; or
- C) To a maximum control device exhaust outlet concentration of 20 ppmv (as carbon);
- 2) The owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the control device; and
- 3) The use of the control device in accordance with this plan is approved by the Agency and USEPA as federally enforceable permit conditions.

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

### **Section 218.415 Testing for Letterpress Printing Lines**

- a) Testing to demonstrate compliance with the requirements of Section 218.413 of this Subpart shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Subpart. Such testing shall be conducted at the expense of the owner or operator, and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing.
- b) The methods and procedures of Section 218.105(d) and (f) shall be used for testing to demonstrate compliance with the requirements of Section 218.413(a)(1)(B) or (b)(1) of this Subpart, as follows:
  - 1) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part. The sampling sites for determining efficiency in reducing VOM from the dryer exhaust shall be located between the dryer exhaust and the control device inlet, and between the outlet of the control device and the exhaust to the atmosphere;
  - 2) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part;
  - 3) To determine the VOM concentration of the exhaust stream entering and exiting the control device, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 218.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:

- A) The allowable outlet concentration of VOM from the control device is less than 50 ppmv, as carbon;
  - B) The VOM concentration at the inlet of the control device and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and
  - C) Due to the high efficiency of the control device, the anticipated VOM concentration at the control device exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;
- 4) Notwithstanding the criteria or requirements in Method 25 which specifies a minimum probe temperature of 129° C (265° F), the probe must be heated to at least the gas stream temperature of the dryer exhaust, typically close to 176.7° C (350° F);
  - 5) During testing, the printing line(s) shall be operated at representative operating conditions and flow rates; and
  - 6) During testing, an air flow direction indicating device, such as a smoke stick, shall be used to demonstrate 100 percent emissions capture efficiency for the dryer in accordance with Section 218.413(a)(1)(A) of this Subpart.
- c) Testing to demonstrate compliance with the VOM content limitations in Section 218.413(a)(2)(A) of this Subpart, and to determine the VOM content of cleaning solvents, cleaning solutions, and inks (pursuant to the requirements of Section 218.417(b)(1)(B) of this Subpart), shall be conducted upon request of the Agency, or as otherwise specified in this Subpart, as follows:
    - 1) The applicable test methods and procedures specified in Section 218.105(a) of this Part shall be used; provided, however, Method 24, incorporated by reference in Section 218.112 of this Part, shall be used to demonstrate compliance; or

- 2) The manufacturer's specifications for VOM content for cleaning solvents and inks may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part; provided, however, Method 24 shall be used to determine compliance.
- d) Testing to demonstrate compliance with the requirements of Section 218.413(b) of this Subpart shall be conducted as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 218.413(b) of this Subpart.
- e) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 218.110 of this Part.

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

#### **Section 218.416 Monitoring Requirements for Letterpress Printing Lines**

- a) Afterburners For Heatset Web Letterpress Printing Line(s). If an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line subject to Section 218.413(a)(1)(B) of this Subpart shall:
  - 1) Install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3° C or 5° F on the afterburner in accordance with Section 218.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the afterburner is operating; and
  - 2) Install, calibrate, operate, and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor.
- b) Other Control Devices for Heatset Web Letterpress Printing Line(s). If a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line subject to this Subpart shall install, maintain, calibrate, and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 218.413(b) of this Subpart.
- c) Cleaning Solution.

- 1) The owner or operator of any letterpress printing line relying on the VOM content of the cleaning solution to comply with Section 218.413(a)(2)(A) of this Subpart must:
  - A) For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):
    - i) Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and
    - ii) Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with Section 218.413(a)(2)(A) of this Subpart;
  - B) For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in Section 218.417(c)(2) of this Subpart.
- 2) The owner or operator of any letterpress printing line relying on the vapor pressure of the cleaning solution to comply with Section 218.413(a)(2)(B) of this Subpart must keep records for such cleaning solutions used on any such line(s) as set forth in Section 218.417(e)(2)(C) of this Subpart.

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

### **Section 218.417 Recordkeeping and Reporting for Letterpress Printing Lines**

- a) By May 1, 2010, or upon initial start-up of a new heatset web letterpress printing line, whichever is later, and upon modification of a heatset web letterpress printing line, an owner or operator of a heatset web letterpress printing line exempt from any of the limitations of Section 218.413 of this Subpart because of the criteria in Section 218.412(a)(1) shall submit a certification to the Agency that includes:
  - 1) A declaration that the source is exempt from the requirements in Section 218.413 of this Subpart because of the criteria in Section 218.412(a)(1) of this Subpart;
  - 2) Calculations which demonstrate that the source's total potential to emit VOM does not equal or exceed 22.7 Mg (25 tons) per year;

- b) An owner or operator of a letterpress printing line exempt from any of the limitations of Section 218.413 of this Subpart because of the criteria in Section 218.412(a)(2) shall:
- 1) By May 1, 2010, or upon initial start-up of a new letterpress printing line, whichever is later, and upon modification of a letterpress printing line, submit a certification to the Agency that includes the information specified in either subsections (b)(1)(A) through (b)(1)(C) of this Section, or subsections (b)(1)(A) and (b)(1)(D) of this Section, as applicable:
    - A) A declaration that the source is exempt from the control requirements in Section 218.413 of this Part because of the criteria in Section 218.412(a)(2) of this Subpart;
    - B) Calculations which demonstrate that combined emissions of VOM from all letterpress printing lines (including inks and solvents used for cleanup operations associated with the letterpress printing lines) at the source never equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, as follows:
      - i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all letterpress printing lines at the source (including solvents used for cleanup operations associated with the letterpress printing lines) and divide this amount by the number of days during that calendar month that letterpress printing lines at the source were in operation;
      - ii) To determine the VOM content of the inks and cleaning solvents, the tests methods and procedures set forth in Section 218.415(c) of this Subpart shall be used;
      - iii) To determine VOM emissions from inks used on letterpress printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and

- iv) To determine VOM emissions from cleaning solutions used on letterpress printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. Otherwise, no retention factor is used;
  
- C) A description and the results of all tests used to determine the VOM content of inks and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 218.415(c)(1) of this Subpart;
  
- D) As an alternative to the calculations in subsection (b)(1)(B), above, a statement that the source uses less than the amount of material specified in subsections (b)(1)(D)(i) or (b)(1)(D)(ii), below, as applicable, during each calendar month. A source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM based upon compliance with such material use limitations. If the source exceeds this amount of material use in a given calendar month, the owner or operator must, within 15 days of the end of that month, complete the emissions calculations of subsection (b)(1)(B) to determine daily emissions for applicability purposes. If the source ever exceeds this amount of material use for six consecutive calendar months, it is no longer eligible to use this subsection as an alternative to the calculations in subsection (b)(1)(B). If a source has both heatset web and either nonheatset web or sheetfed letterpress printing operations, or has all three types of printing operations, the owner or operator may not make use of this alternative and must use the calculations in subsection (b)(1)(B).
  - i) The sum of all sheetfed and nonheatset web letterpress printing operations at the source: 242.3 liters (64 gallons) of cleaning solvent; or
  - ii) The sum of all heatset web letterpress printing operations at the source: 204.1 kg (450 lbs) of ink and cleaning solvent.
  
- 2) For sources complying with subsection (b)(1)(B) of this Section, notify the Agency in writing if the combined emissions of VOM from all letterpress printing lines (including inks and solvents used for cleanup operations associated with the letterpress printing lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs.



- 3) For sources complying with subsection (b)(1)(D) of this Section, comply with the following:
- i) Maintain material use records showing that the source uses less than the amount of material specified in subsections (b)(1)(D)(i) and (b)(1)(D)(ii) during each calendar month, or, if the source exceeds the material use limitations, records showing that the source exceeded the limitations but did not emit 6.8 kg/day (15 lbs/day) or more of VOM;
  - ii) Notify the Agency in writing if the source exceeds the material use limitations for six consecutive calendar months, or if the source changes its method of compliance from subsection (b)(1)(D) to subsection (b)(1)(B) of this Section, within 30 days after the event occurs;
- c) Unless complying with subsection (b)(1)(D) and (b)(3) of this Section, on and after May 1, 2010, an owner or operator of a letterpress printing line subject to the requirements in subsections (a) or (b) of this Section shall collect and record either the information specified in subsection (c)(1) or (c)(2) of this Section for all letterpress printing lines at the source:
- 1) Standard recordkeeping, including the following:
    - A) The name and identification of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
    - B) A daily record which shows whether a letterpress printing line at the source was in operation on that day;
    - C) The VOM content and the volume of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
    - D) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each cleaning solvent and letterpress ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; and
    - E) The VOM emissions in lbs/day for the month, calculated in accordance with Section 218.417(b)(1)(B) of this Subpart;
  - 2) Purchase and inventory recordkeeping, including the following:

- A) The name, identification, and VOM content of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
  - B) Inventory records from the beginning and end of each month indicating the total volume of each letterpress ink, and cleaning solvent to be used on any letterpress printing line at the source;
  - C) Monthly purchase records for each letterpress ink and cleaning solvent used on any letterpress printing line at the source;
  - D) A daily record which shows whether a letterpress printing line at the source was in operation on that day;
  - E) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each cleaning solvent and letterpress ink (with the applicable ink VOM emission adjustment factor) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to subsections (c)(2)(A), (c)(2)(B), and (c)(2)(C) of this Section; and
  - F) The VOM emissions in lbs/day for the month, calculated in accordance with Section 218.417(b)(1)(B) of this Subpart;
- d) An owner or operator of a heatset web letterpress printing line(s) subject to the control requirements of Section 218.413(a)(1)(B) or (b)(1) of this Subpart shall comply with the following:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, and upon initial start-up of a new control device for a heatset web printing line, submit a certification to the Agency that includes the following:
    - A) An identification of each heatset web letterpress printing line at the source;
    - B) A declaration that each heatset web letterpress printing line is in compliance with the requirements of Section 218.413 (a)(1) or (b) of this Subpart, as appropriate;
    - C) The type of afterburner or other approved control device used to comply with the requirements of Section 218.413(a)(1)(B) or (b)(1) of this Subpart, and the date that such device was first constructed at the subject source;

- D) The control requirements in Section 218.413(a)(1)(B) or (b)(1) of this Subpart with which the letterpress printing line is complying;
  - E) The results of all tests and calculations necessary to demonstrate compliance with the control requirements of Section 218.413(a)(1)(B) or (b)(1) of this Subpart, as applicable; and
  - F) A declaration that the monitoring equipment required under Section 218.413(a)(1)(C) or (b) of this Subpart, as applicable, has been properly installed and calibrated according to manufacturer's specifications;
- 2) If testing of the afterburner or other approved control device is conducted pursuant to Section 218.415(b) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
- A) A declaration that all tests and calculations necessary to demonstrate whether the letterpress printing line(s) is in compliance with Section 218.413(a)(1)(B) or (b)(1) of this Subpart, as applicable, have been properly performed;
  - B) A statement whether the heatset web letterpress printing line(s) is or is not in compliance with Section 218.413(a)(1)(B) or (b)(1) of this Subpart, as applicable; and
  - C) The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with Section 218.416(a) or (b) of this Subpart, as applicable;
- 3) Except as provided in subsection (d)(3)(D) of this Section, collect and record daily the following information for each heatset web letterpress printing line subject to the requirements of Section 218.413(a)(1)(B) or (b)(1) of this Subpart:
- A) Afterburner or other approved control device monitoring data in accordance with Section 218.416(a) or (b) of this Subpart, as applicable;
  - B) A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;
  - C) A maintenance log for the afterburner or other approved control device and monitoring equipment detailing all routine and non-

routine maintenance performed, including dates and duration of any outages; and

- D) A log detailing checks on the air flow direction or air pressure of the dryer and press room to ensure compliance with the requirements of Section 218.413(a)(1)(A) of this Subpart at least once per calendar month while the line is operating;
- 4) Notify the Agency in writing of any violation of Section 218.413(a)(1)(B) or (b)(1) of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;
- 5) If changing the method of compliance between Sections 218.413 (a)(1)(B) and 218.413(b) of this Subpart, certify compliance for the new method of compliance in accordance with Section 218.413(b) at least 30 days before making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the requirements of Section 218.413(a)(1) of this Subpart, or Section 218.413(b) of this Subpart, as applicable.
- e) For letterpress printing line cleaning operations, an owner or operator of a letterpress printing line subject to the requirements of Section 218.413 of this Subpart shall:
- 1) By May 1, 2010, or upon initial start-up of a new letterpress printing line, whichever is later, certify to the Agency that all cleaning solutions, other than those excluded pursuant to Section 218.412(b), and the handling of all cleaning materials will be in compliance with the requirements of Section 218.413(a)(2)(A) or (a)(2)(B) and (a)(3) of this Subpart. Such certification shall include:
- A) A statement that the cleaning solution will comply with the limitations in Section 218.413(a)(2);
- B) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;
- C) A sample of the records that will be kept pursuant to Section 218.417(e)(2) of this Subpart; and
- D) A description of the practices that ensure that VOM-containing cleaning materials are kept in closed containers;
- 2) Collect and record the following information for each cleaning solution used on each letterpress printing line:

- A) For each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 218.413(a)(2)(A) of this Subpart and which is prepared at the source with automatic equipment:
- i) The name and identification of each cleaning solution;
  - ii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 218.415(c) of this Subpart;
  - iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
  - iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
  - v) The VOM content of the as-used cleaning solution, with supporting calculations; and
  - vi) A calibration log for the automatic equipment, detailing periodic checks;
- B) For each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 218.413(a)(2)(A) of this Subpart, and which is not prepared at the source with automatic equipment:
- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 218.415(c) of this Subpart;
  - iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and

- v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 218.105(a) of this Part;
- C) For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Section 218.413(a)(2)(B) of this Subpart:
- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 218.415(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 218.105(a) and 218.110 of this Part;
  - iv) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - v) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Section 218.415(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 218.105(a) and 218.110 of this Part;
- D) The date, time, and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any;

- E) The amount of cleaning materials used on letterpress printing lines at the source that do not comply with the cleaning material limitations set forth in Section 218.413(a)(2) of this Subpart;
- 3) Notify the Agency in writing of any violation of Section 218.413 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation.
- f) The owner or operator shall maintain all records required by this Section at the source for a minimum period of three years and shall make all records available to the Agency upon request.

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

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 SUBCHAPTER c: EMISSIONS STANDARDS AND  
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PART 219  
 ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS FOR  
 THE METRO EAST AREA

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<u>219.412</u>	<u>Letterpress Printing Lines: Applicability</u>
<u>219.413</u>	<u>Emission Limitations and Control Requirements for Letterpress Printing Lines</u>
<u>219.415</u>	<u>Testing for Letterpress Printing Lines</u>
<u>219.416</u>	<u>Monitoring Requirements for Letterpress Printing Lines</u>



219.417 Recordkeeping and Reporting for Letterpress Printing Lines

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

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 R10-08 at 34 Ill. Reg. \_\_\_\_, effective \_\_\_\_ :

**SUBPART A: GENERAL PROVISIONS****Section 219.106 Compliance Dates**

- a) Except as provided in subsection (b) or (c) 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(o) of this Part shall comply with the requirements in Section 219.204(o), as well as all applicable requirements in Sections 219.205 through 219.211, 219.214, and 219.217, by May 1, 2010.

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

**SUBPART E: SOLVENT CLEANING****Section 219.181 Solvent Cleaning Degreasing Operations~~in General~~**

The requirements of Sections 219.182, 219.183, 219.184, and 219.186 of this Subpart shall apply to all cold cleaning, open top vapor degreasing, and conveyORIZED degreasing operations which use volatile organic materials.

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

**Section 219.187 Other Industrial Solvent Cleaning Operations**

- a) Applicability. On and after April 1, 2011:
- 1) Except as provided in subsection (a)(2) of this Section, the requirements of this Section shall apply to all cleaning operations which use organic materials at sources that emit a total of 6.8 kg/day (15 lbs/day) or more of VOM from cleaning operations at the source, in the absence of air pollution control equipment. For purposes of this Section, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;
  - 2) Notwithstanding subsection (a)(1) of this Section:
    - A) The following cleaning operations shall be exempt from the requirements of subsections (b), (c), (d), (f), and (g) of this Section:
      - i) Cleaning operations subject to the limitations in Sections 219.182, 219.183, or 219.184;
      - ii) Janitorial cleaning;
      - iii) Stripping of cured coatings, inks, or adhesives, including screen reclamation activities;
      - iv) Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;
    - B) Cleaning operations for emission units within the following source categories shall be exempt from the requirements of subsections (b), (c), (d), (f), and (g) of this Section:
      - i) Aerospace coating;

- ii) Flexible package printing;
- iii) Lithographic printing;
- iv) Letterpress printing;
- v) Flat wood paneling coating;
- vi) Large appliance coating;
- vii) Metal furniture coating;
- viii) Paper, film, and foil coating;
- ix) Wood furniture coating;
- x) Shipbuilding and repair coating;
- xi) Plastic parts coating;
- xii) Miscellaneous metal parts coating;
- xiii) Fiberglass boat manufacturing;
- xiv) Miscellaneous industrial adhesives; and
- xv) Auto and light-duty truck assembly coating;

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

- i) Cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics;
- ii) Cleaning conducted as part of performance laboratory tests on coatings, adhesives, or inks; research and development operations; or laboratory tests in quality assurance laboratories;
- iii) Cleaning of paper-based gaskets and clutch assemblies where rubber is bonded to metal by means of an adhesive;
- iv) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics;

- v) Cleaning of medical device and pharmaceutical manufacturing facilities using no more than 1.5 gallons per day of solvents;
  - vi) Cleaning of adhesive application equipment used for thin metal laminating;
  - vii) Cleaning of electronic or electrical cables;
  - viii) Touch-up cleaning performed on printed circuit boards where surface mounted devices have already been attached;
  - ix) Cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery products using no more than three gallons per day of ethyl acetate;
  - x) Cleaning of application equipment used to apply coatings on satellites and radiation effect coatings;
  - xi) Cleaning of application equipment used to apply solvent-borne fluoropolymer coatings;
  - xii) Cleaning of ultraviolet or electron beam adhesive application;
  - xiii) Cleaning of sterilization indicating ink application equipment if the facility uses no more than 1.5 gallons per day of solvents for such cleaning;
  - xiv) Cleaning of metering rollers, dampening rollers, and printing plates;
  - xv) Cleaning of numismatic dies; and
  - xvi) Cleaning operations associated with digital printing.
- b) Material and Control Requirements. No owner or operator of a source subject to this Section shall perform any cleaning operation subject to this Section unless the owner or operator meets the requirements in subsection (b)(1), (b)(2), or (b)(3):
- 1) The VOM content of the as-used cleaning solutions (minus water and any compounds which are specifically exempted from the definition of VOM) does not exceed the following emissions limitations:
    - A) Product cleaning during manufacturing process or surface preparation for coating,

<u>adhesive, or ink application:</u>		<u>kg/l</u>	<u>lb/gal</u>
i)	<u>Electrical apparatus components and electronic components</u>	<u>0.10</u>	<u>0.83</u>
ii)	<u>Medical device and pharmaceutical manufacturing</u>	<u>0.80</u>	<u>6.7</u>
<u>B) Repair and maintenance cleaning:</u>		<u>kg/l</u>	<u>lb/gal</u>
i)	<u>Electrical apparatus components and electronic components</u>	<u>0.10</u>	<u>0.83</u>
ii)	<u>Medical device and pharmaceutical manufacturing: tools, equipment, and machinery</u>	<u>0.80</u>	<u>6.7</u>
iii)	<u>Medical device and pharmaceutical manufacturing: general work surfaces</u>	<u>0.60</u>	<u>5.0</u>
<u>C) Cleaning of ink application equipment:</u>		<u>kg/l</u>	<u>lb/gal</u>
i)	<u>Rotogravure printing that does not print flexible packaging</u>	<u>0.10</u>	<u>0.83</u>
ii)	<u>Screen printing</u>	<u>0.50</u>	<u>4.2</u>
iii)	<u>Ultraviolet ink and electron beam ink application equipment, except screen printing</u>	<u>0.65</u>	<u>5.4</u>
iv)	<u>Flexographic printing that does not print flexible packaging</u>	<u>0.10</u>	<u>0.83</u>
D)	<u>All other cleaning operations not subject to a specific limitation in subsections (b)(1)(A) through (b)(1)(C) of this Section</u>	<u>kg/l</u>	<u>lb/gal</u>
		<u>0.050</u>	<u>0.42</u>

2) The composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20° C (68° F); or

- 3) An afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall. The owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions.
- c) The owner or operator of a subject source shall demonstrate compliance with this Section by using the applicable test methods and procedures specified in subsection (g) of this Section and by complying with the recordkeeping and reporting requirements specified in subsection (e) of this Section.
- d) Operating Requirements. The owner or operator of a source subject to the requirements of this Section shall comply with the following for each subject cleaning operation:
  - 1) Cover open containers and properly cover and store applicators used to apply cleaning solvents;
  - 2) Minimize air circulation around the cleaning operation;
  - 3) Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;
  - 4) Utilize equipment practices that minimize emissions.
- e) Recordkeeping and Reporting Requirements.
  - 1) The owner or operator of a source exempt from the limitations of this Section because of the criteria in Section 219.187(a)(1) of this Subpart shall comply with the following:
    - A) By April 1, 2011, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:
      - i) A declaration that the source is exempt from the requirements of this Section because of the criteria in Section 219.187(a)(1);
      - ii) Calculations which demonstrate that combined emissions of VOM from cleaning operations at the source never equal

or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment;

B) Notify the Agency of any record that shows that the combined emissions of VOM from cleaning operations at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs.

2) All sources subject to the requirements of this Section shall:

A) By April 1, 2011, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:

- i) A declaration that all subject cleaning operations are in compliance with the requirements of this Section;
- ii) Identification of each subject cleaning operation and each VOM-containing cleaning solution used as of the date of certification in such operation;
- iii) If complying with the emissions control system requirement, what type of emissions control system will be used;
- iv) Initial documentation that each subject cleaning operation will comply with the applicable limitation, including copies of manufacturer's specifications, test results (if any), formulation data, and calculations;
- v) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;
- vi) A description of the practices and procedures that the source will follow to ensure compliance with the limitations in Section 219.187(d); and
- vii) A description of each cleaning operation exempt pursuant to Section 219.187(a)(2), if any, and a listing of the emission unit(s) on which the exempt cleaning operation is performed;

B) At least 30 calendar days before changing the method of compliance between subsections (b)(1) or (b)(2), and subsection (b)(3) of this Section, notify the Agency in writing of such change.

Such notification shall include a demonstration of compliance with the newly applicable subsection;

3) All sources complying with this Section pursuant to the requirements of subsection (b)(1) of this Section shall collect and record the following information for each cleaning solution used:

A) For each cleaning solution which is prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) The VOM content of each cleaning solvent in the cleaning solution;

iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

v) The VOM content of the as-used cleaning solution, with supporting calculations; and

vi) A calibration log for the automatic equipment, detailing periodic checks;

B) For each batch of cleaning solution which is not prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) Date, time of preparation, and each subsequent modification of the batch;

iii) The VOM content of each cleaning solvent in the cleaning solution;

iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and



- v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are not prepared at the site but are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part;
- 4) All sources complying with this Section pursuant to the requirements of subsection (b)(2) of this Section shall collect and record the following information for each cleaning solution used:
- A) The name and identification of each cleaning solution;
  - B) Date, time of preparation, and each subsequent modification of the batch;
  - C) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with the applicable methods and procedures specified in Section 219.110 of this Part;
  - D) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - E) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with the applicable methods and procedures specified in Section 219.110 of this Part;
- 5) All sources complying with this Section pursuant to the requirements of subsection (b)(3) of this Section shall comply with the following:
- A) By April 1, 2011, or upon initial start-up of the source, whichever is later, and upon initial start-up of a new emissions control system, include in the certification required by subsection (e)(3) of this Section a declaration that the monitoring equipment required under Section 219.187(f) of this Subpart has been properly installed and calibrated according to manufacturer's specifications;
  - B) If testing of an emissions control system is conducted pursuant to Section 219.187(g) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:

- i) A declaration that all tests and calculations necessary to demonstrate compliance with Section 219.187(b)(3) of this Subpart have been properly performed;
  - ii) A statement whether the subject cleaning operation is or is not in compliance with Section 219.187(b)(3) of this Subpart; and
  - iii) The operating parameters of the emissions control system during testing, as monitored in accordance with Section 219.187(f) of this Subpart;
- C) Collect and record daily the following information for each cleaning operation subject to the requirements of Section 219.187(b)(3) of this Subpart:
- i) Emissions control system monitoring data in accordance with Section 219.187(f) of this Subpart, as applicable;
  - ii) A log of operating time for the emissions control system, monitoring equipment, and the associated cleaning equipment;
  - iii) A maintenance log for the emissions control system and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
- D) Maintain records documenting the use of good operating practices consistent with the equipment manufacturer's specifications for the cleaning equipment being used and the emissions control system equipment. At a minimum, these records shall include:
- i) Records for periodic inspection of the cleaning equipment and emissions control system equipment with date of inspection, individual performing the inspection, and nature of inspection;
  - ii) Records for repair of malfunctions and breakdowns with identification and description of incident, date identified, date repaired, nature of repair, and the amount of VOM released into the atmosphere as a result of the incident;
- 6) All sources subject to the requirements of subsections (b) and (d) of this Section shall notify the Agency of any violation of subsections (b) or (d) by providing a description of the violation and copies of records

documenting such violation to the Agency within 30 days following the occurrence of the violation;

7) All records required by this subsection (e) shall be retained by the source for at least three years and shall be made available to the Agency upon request.

f) Monitoring Requirements.

1) If an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to Section 219.187(b)(3) of this Subpart shall:

A) Install, calibrate, operate, and maintain temperature monitoring device(s) with an accuracy of 3° C or 5° F on the emissions control system in accordance with Section 219.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the emissions control system is operating; and

B) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor;

2) If an emissions control system other than an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to Section 219.187(b)(3) of this Subpart shall install, maintain, calibrate, and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 219.187(b)(3).

g) Testing Requirements.

1) Testing to demonstrate compliance with the requirements of this Section shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Section. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing;

2) Testing to demonstrate compliance with the VOM content limitations in Section 219.187(b)(1) of this Subpart, and to determine the VOM content of cleaning solvents and cleaning solutions, shall be conducted, as follows:

- A) The applicable test methods and procedures specified in Section 219.105(a) of this Part shall be used, provided, however, Method 24, incorporated by reference in Section 219.112 of this Part, shall be used to demonstrate compliance; or
  - B) The manufacturer's specifications for VOM content for cleaning solvents may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part, provided, however, Method 24 shall be used to determine compliance;
- 3) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 219.110 of this Part;
- 4) For afterburners and carbon adsorbers, the methods and procedures of Section 219.105(d) through (f) shall be used for testing to demonstrate compliance with the requirements of Section 219.187(b)(3) of this Subpart, as follows:
- A) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part;
  - B) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part;
  - C) To determine the VOM concentration of the exhaust stream entering and exiting the emissions control system, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:
    - i) The allowable outlet concentration of VOM from the emissions control system is less than 50 ppmv, as carbon;
    - ii) The VOM concentration at the inlet of the emissions control system and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and

- iii) Due to the high efficiency of the emissions control system, the anticipated VOM concentration at the emissions control system exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;
- D) During testing, the cleaning equipment shall be operated at representative operating conditions and flow rates;
- 5) An owner or operator using an emissions control system other than an afterburner or carbon adsorber shall conduct testing to demonstrate compliance with the requirements of Section 219.187(b)(3) of this Subpart as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 219.187(b)(3) of this Subpart.

(Source: Added at 34ll. 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 provided in Sections 219.204(l) and 219.204(o), 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.)

		kg/l	lb/gal
3)	Topcoat	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.)

		kg/l	lb/gal
4)	Final repair coat	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	(3.7)
			0.44*	(3.7)*
			kg/l	lb/gal
c)		Paper Coating	0.35	(2.9)
			0.28*	(2.3)*

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which flexographic, ~~or~~ rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in ~~Subpart H~~ 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.)

			kg/l	lb/gal
d)		Coil Coating	0.31	(2.6)
			0.20*	(1.7)*
e)		Fabric Coating	0.35	(2.9)
			0.28*	(2.3)*
f)		Vinyl Coating	0.45	(3.8)
			0.28*	(2.3)*

g) Metal Furniture Coating			
1)	Air dried	0.36	(3.0)
		0.34*	(2.8)*
2)	Baked	0.36	(3.0)
		0.28*	(2.3)*
h) Large Appliance Coating			
1)	Air dried	0.34	(2.8)
		0.34*	(2.8)*
2)	Baked	0.34	(2.8)
		0.28*	(2.3)*
(Note: The limitation 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.)			
		kg/l	lb/gal
i) Magnet Wire Coating			
		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)		Metallic Coating		
	A)	Air Dried	0.42	(3.5)
			0.42*	(3.5)*
	B)	Baked	0.36	(3.0)
			0.36	(3.0)*
6)		For purposes of subsection 219.204(j)(5) of this Section, "metallic coating" means a coating which contains more than 1/4 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 (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)*

o) Flat Wood Paneling Coatings. On and after May 1, 2010, flat wood paneling coatings shall comply with one of the following limitations:

- 1) 0.25 kg VOM/l of coatings (2.1 lb VOM/gal coatings); or
- 2) 0.35 kg VOM/l solids (2.9 lb VOM/gal solids).

(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) 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), (c), (d), (e), (f), ~~(i)~~, or (o) 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 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 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 0.882 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 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 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 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 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 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 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 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 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 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 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 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.

(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), (c), (d), (e), (f) or (i) 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 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/1 [3.5 lbs/gal], and 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 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 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 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 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 provides 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 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 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) No owner or operator of a metal furniture coating line 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 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) No owner or operator of a large appliance coating line 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 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) No owner or operator of a flat wood paneling coating line which 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 of the flat wood paneling coating line complies with all requirements set forth in subsection (b)(2) of this Section.

(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), ~~(f)~~, or (g) below:

- a) No owner or operator of a coating line 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 contained in Section 219.204(o) of this Subpart shall operate said 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(o) or the alternative control options in Section 219.205 or 219.207, and the requirements of Sections 219.211 and 219.217 of this Subpart, as applicable.

(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 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 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. 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; ~~and~~;
- D) For coating lines subject to the limitations of Section 219.204(o) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, 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; and-

- E) For coating lines subject to the limitations of Section 219.204(o) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.
- 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. 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(l)(2)(A) or (B) of this Subpart, the weight of VOM per weight of solids in each coating as applied each day on each coating line.
- E) For coating lines subject to the limitations of Section 219.204(o) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.
- ~~FE~~) 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.
- ~~GF~~) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
- ~~HG~~) 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 startup 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(o) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, as applied each day on each coating line.

- ~~E~~) 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 startup 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 startup date.
- 2) On and after a date consistent with Section 219.106 of this Part, or on and after the initial startup 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 startup 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 startup date. 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) below.
  - H) An example format for presenting the records required in subsection (f)(2) 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(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 flat wood paneling coating line subject to the requirements in Section 219.217 of this Subpart shall comply with the following:
  - 1) By May 1, 2010, or upon initial start-up, whichever is later, submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Sections 219.217(c) and 219.217(d) of this Subpart; and
  - 2) Notify the Agency of any violation of Section 219.217 of this Subpart by providing a description of the violation and copies of records documenting such violation to the Agency within 30 days following the occurrence of the violation.

(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(o) 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:

$$A_d = A_1 + A_p$$

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

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

$$A_1 = \sum_{i=1}^n V_i L_i \frac{(D_i - C_i)}{(D_i - L_i)}$$

where:

- $A_1$  = 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  $A_1$ , 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:

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

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 219.217 Wood Furniture Coating and Flat Wood Paneling Coating Work Practice Standards**

- a) Spray booth cleaning. Each owner or operator of a source subject to the limitations of Section 219.204(1) of this Subpart shall not use compounds containing more than 8.0 percent, by weight, of VOM for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, and metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is, the spray booth coating or other material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic solvent to prepare the booth prior to applying the booth coating.
- b) Application equipment requirements. No owner or operator of a source subject to the limitations of Section 219.204(1) of this Subpart shall use conventional air spray guns to apply coating materials to wood furniture except under the circumstances specified in subsections (b)(1) through (4) of this Section:
  - 1) To apply coating materials that have a VOM content no greater than 1.0 kg VOM/kg solids (1.0 lb VOM/lb solids), as applied;
  - 2) For repair coating under the following circumstances:
    - A) The coating materials are applied after the completion of the coating operation; or
    - B) The coating materials are applied after the stain and before any other type of coating material is applied, and the coating materials are applied from a container that has a volume of no more than 2.0 gallons;
  - 3) If the spray gun is aimed and triggered automatically, rather than manually; or
  - 4) If emissions from the finishing application station are directed to a control device pursuant to Section 219.216 of this Subpart.
- c**b**) Cleaning and storage requirements. Each owner or operator of a source subject to

the limitations of Section 219.204(l) or 219.204(o) of this Subpart shall:

- 1) Keep, store, and dispose of all coating, cleaning, and washoff materials in closed containers;
- 2) Pump or drain all organic solvent used for line cleaning into closed containers;
- 3) Collect all organic solvent used to clean spray guns in closed containers; and
- 4) Control emissions from washoff operations by using closed tanks.

d) Additional cleaning and storage requirements for flat wood paneling coating lines. Every owner or operator of a source subject to the limitations of Section 219.204(o) of this Subpart shall:

- 1) Minimize spills of VOM-containing coatings, thinners, and cleaning materials and clean up spills immediately;
- 2) Minimize emissions of VOM during the cleaning of storage, mixing, and conveying equipment; and
- 3) Keep mixing vessels which contain VOM-containing coatings and other VOM-containing materials closed except when specifically in use.

~~e) Application equipment requirements. No owner or operator of a source subject to the limitations of Section 219.204(l) of this Subpart shall use conventional air spray guns to apply coating materials to wood furniture except under the circumstances specified in subsections (c)(1) through (4) of this Section:~~

- 1) ~~To apply coating materials that have a VOM content no greater than 1.0 kg VOM/kg solids (1.0 lb VOM/lb solids), as applied;~~
- 2) ~~For repair coating under the following circumstances:~~
  - A) ~~The coating materials are applied after the completion of the coating operation; or~~
  - B) ~~The coating materials are applied after the stain and before any other type of coating material is applied, and the coating materials are applied from a container that has a volume of no more than 2.0 gallons;~~
- 3) ~~If the spray gun is aimed and triggered automatically, rather than manually; or~~

- 4) ~~If emissions from the finishing application station are directed to a control device pursuant to Section 219.216 of this Subpart.~~

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

## SUBPART H: PRINTING AND PUBLISHING

### Section 219.401 Flexographic and Rotogravure Printing

- a) No owner or operator of a subject flexographic, ~~packaging rotogravure or publication~~ rotogravure printing line shall apply at any time any coating or ink unless the VOM content does not exceed the limitation specified in either subsection (a)(1) or (a)(2) below, as applicable. Compliance with this Section must be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 219.105(a) and the recordkeeping and reporting requirements specified in Section 219.404(c) of this Part. As an alternative to compliance with this subsection, a subject printing line may meet the requirements of subsection (b) or (c) below.
- 1) Prior to May 1, 2010, either:
- A) Forty percent VOM by volume of the coating and ink (minus water and any compounds which are specifically exempted from the definition of VOM), or
- B) ~~2~~ Twenty-five percent VOM by volume of the volatile content in the coating and ink and;
- 2) On and after May 1, 2010:
- A) For owners or operators of flexographic or rotogravure printing lines that do not print flexible packaging, either:
- i) Forty percent VOM by volume of the coating and ink (minus water and any compounds which are specifically exempted from the definition of VOM), or
- ii) Twenty-five percent VOM by volume of the volatile content in the coating and ink;
- B) For owners or operators of flexographic or rotogravure printing lines that print flexible packaging, or that print flexible packaging and non-flexible packaging on the same line, either:
- i) 0.8 kg VOM/kg (0.8 lbs VOM/lb) solids applied, or

ii) 0.16 kg VOM/kg (0.16 lbs VOM/lb) inks and coatings applied;

b) Weighted Averaging Alternative.

1) ~~Prior to May 1, 2010, no~~ owner or operator of a subject flexographic, ~~packaging rotogravure or publication rotogravure~~ printing line shall apply coatings or inks on the subject printing line unless the weighted average, by volume, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(1)(A) (as determined by subsection (b)(1)(A)) or subsection (a)(12)(B) (as determined by subsection (b)(12)(B) of this Section). Compliance with this subsection must be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.404(d) of this Part.

A4) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(1)(A) of this Section

$$\text{VOM}_{(i)(A)} = \frac{\sum_{i=1}^n C_i L_i (V_{si} + V_{\text{VOM}i})}{\sum_{i=1}^n L_i (V_{si} + V_{\text{VOM}i})}$$

Where:

$\text{VOM}_{(i)(A)}$  = The weighted average VOM content in units of percent VOM by volume of all coatings and inks (minus water and any compounds which are specifically exempted from the definition of VOM) used each day;

i = Subscript denoting a specific coating or ink as applied;

n = The number of different coatings



and/or inks as applied each day on a printing line;

$C_i$  = The VOM content in units of percent VOM by volume of each coating or ink as applied (minus water and any compounds which are specifically exempted from the definition of VOM);

$L_i$  = The liquid volume of each coating or ink as applied in units of l (gal);

$V_{si}$  = The volume fraction of solids in each coating or ink as applied;

$V_{VOMi}$  = The volume fraction of VOM in each coating or ink as applied.

**B2)** The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(~~12~~)(**B**) of this Section.

$$VOM_{(i)(B)} = \frac{\sum_{i=1}^n C_i L_i V_{VOMi}}{\sum_{i=1}^n L_i V_{VOMi}}$$

Where:

$VOM_{(i)(B)}$  = The weighted average VOM content in units of percent VOM by volume of the volatile content of all coatings and inks used each day;

$i$  = Subscript denoting a specific coating or ink as applied;

$n$  = The number of different coatings and/or inks as applied each day on each printing line;

$C_i$  =  $C_i$  = The VOM content in units of percent VOM by volume of the volatile matter in each coating or

ink as applied;

$L_i$  = The liquid volume of each coating or ink as applied in units of l (gal);

$V_{VMi}$  = The volume fraction of volatile matter in each coating or ink as applied.

2) On and after May 1, 2010, no owner or operator of a subject flexographic or rotogravure printing line that does not print flexible packaging shall apply coatings or inks on the subject printing line unless the weighted average, by weight, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(2)(A)(i) (calculated in accordance with the equation in subsection (b)(1)(A)) or subsection (a)(2)(A)(ii) (calculated in accordance with the equation in subsection (b)(1)(B)) of this Section. Compliance with this subsection shall be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.404(d) of this Subpart.

3) On and after May 1, 2010, no owner or operator of a subject flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, shall apply coatings or inks on the subject printing line unless the weighted average, by weight, VOM content of all coatings and inks as applied each day on the subject printing line does not exceed the limitation specified in either subsection (a)(2)(B)(i) (calculated in accordance with the equation in subsection (b)(3)(A)) or subsection (a)(2)(B)(ii) (calculated in accordance with the equation in subsection (b)(3)(B)) of this Section. Compliance with this subsection shall be demonstrated through the applicable coating or ink analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.404(d) of this Subpart.

A) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(2)(B)(i) of this Section.

$$VOM_{(A)} = \frac{\sum_{i=1}^n C_i W_i}{\sum_{i=1}^n W_i}$$

i=1

Where:

$VOM_{(A)} =$  The weighted average VOM content in units of kg VOM per kg (lbs VOM per lb) solids of all coatings and inks used each day;

$i =$  Subscript denoting a specific coating or ink as applied;

$n =$  The number of different coatings and/or inks as applied each day on a printing line;

$C_i =$  The VOM content in units of kg VOM per kg (lbs VOM per lb) solids of each coating or ink as applied;

$W_i =$  Weight of solids in each coating or ink, as applied, in units of kg/l (lb/gal).

B) The following equation shall be used to determine if the weighted average VOM content of all coatings and inks as applied each day on the subject printing line exceeds the limitation specified in subsection (a)(2)(B)(ii) of this Section.

$$VOM_{(B)} = \frac{\sum_{i=1}^n C_i L_i}{\sum_{i=1}^n L_i}$$

Where:

$VOM_{(B)} =$  The weighted average VOM content in units of kg (lbs) VOM per weight in kg (lbs) of all coatings or inks as applied each day;

$i =$  Subscript denoting a specific coating or ink as applied;

$n =$  The number of different coatings and/or inks as applied each day on each printing line;

C<sub>i</sub> ≡ The VOM content in units of kg (lbs) VOM per weight in kg (lbs) of each coating or ink as applied;

L<sub>i</sub> ≡ The weight of each coating or ink, as applied, in units of kg/l (lb/gal).

c) Capture System and Control Device Requirements.

1) ~~Prior to May 1, 2010, no~~ No owner or operator of a subject flexographic, ~~packaging rotogravure or publication rotogravure~~ printing line equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsection ~~(c)(1)(A), (c)(1)(B)(2), or (c)(13)(C), as well as and~~ subsections ~~(c)(14)(D), (c)(5), and (c)(6)~~ below.

A1) A carbon adsorption system is used which reduces the captured VOM emissions by at least 90 percent by weight, or

B2) An incineration system is used which reduces the captured VOM emissions by at least 90 percent by weight, or

C3) An alternative VOM emission reduction system is used which is demonstrated to have at least a 90 percent control device efficiency, approved by the Agency and approved by USEPA as a SIP revision, and

D4) The printing line is equipped with a capture system and control device that provides an overall reduction in VOM emissions of at least:

iA) 75 percent where a publication rotogravure printing line is employed, or

iiB) 65 percent where a packaging rotogravure printing line is employed, or

iiiC) 60 percent where a flexographic printing line is employed; ~~and~~

2) On and after May 1, 2010, no owner or operator of a flexographic or rotogravure printing line that does not print flexible packaging and that is equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as well as subsections (c)(1)(D), (c)(5), and (c)(6) of this Section;

- 3) On and after May 1, 2010, no owner or operator of a flexographic or rotogravure printing line that prints flexible packaging and that is equipped with a capture system and control device shall operate the subject printing line unless the owner or operator meets the requirements in subsections (c)(5) and (c)(6) of this Section and the capture system and control device provides an overall reduction in VOM emissions of at least:
- A) 65 percent in cases where a subject printing line was first constructed at the subject source prior to March 14, 1995, and utilizes a control device that was first constructed at the subject source prior to January 1, 2010; or
  - B) 70 percent where a subject printing line was first constructed at the subject source prior to March 14, 1995, and utilizes a control device that was first constructed at the subject source on or after January 1, 2010; or
  - C) 75 percent where a subject printing line was first constructed at the subject source on or after March 14, 1995, and utilizes a control device that was first constructed at the subject source prior to January 1, 2010; or
  - D) 80 percent where a subject printing line was first constructed at the subject source on or after March 14, 1995, and utilizes a control device that was first constructed at the subject source on or after January 1, 2010;
- 4) On and after May 1, 2010, the owner or operator of a flexographic or rotogravure printing line that prints flexible packaging and non-flexible packaging on the same line and that is equipped with a control device shall be subject to the requirements of either subsection (c)(1)(D) or subsection (c)(3) of this Section, whichever is more stringent, as well as subsections (c)(5) and (c)(6) of this Section;
- 5) The control device is equipped with the applicable monitoring equipment specified in Section 219.105(d)(2) of this Part and, except as provided in Section 219.105(d)(3) of this Part, the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use, and
- 6) The capture system and control device are operated at all times when the subject printing line is in operation. The owner or operator shall demonstrate compliance with this subsection by using the applicable capture system and control device test methods and procedures specified in Section 219.105(c) of this Part through Section 219.105(f) of this Part and by complying with the recordkeeping and reporting requirements

specified in Section 219.404(e) of this Part. The owner or operator of a printing line subject to the requirements in Section 219.401(c)(2) or 219.401(c)(1)(D) of this Section that performed all testing necessary to demonstrate compliance with Section 219.401(c)(1)(D) prior to May 1, 2010, is not required to retest pursuant to this subsection (c)(6). The owner or operator of a printing line subject to the requirements in Section 219.401(c)(3) shall perform testing in compliance with this subsection (c)(6), even if the owner or operator already performed such testing prior to May 1, 2010, unless the following conditions are met. Nothing in this subsection (c)(6), however, shall limit the Agency's ability to require that the owner or operator perform testing pursuant to Section 201.282:

- A) On or after May 1, 2000, the owner or operator of the subject printing line performed all testing necessary to demonstrate compliance with Section 219.401(c)(1)(D);
  - B) Such testing also demonstrated an overall control efficiency equal to or greater than the applicable control efficiency requirements in Section 219.401(c)(3);
  - C) The owner or operator submitted the results of such test(s) to the Agency, and the test(s) was not rejected by the Agency;
  - D) The same capture system and control device subject to the tests referenced in subsection (c)(6)(A) of this Section is still being used by the subject printing line; and
  - E) The owner or operator complies with all recordkeeping and reporting requirements in Section 219.404(e)(1)(B);
- d) No owner or operator of subject flexographic or rotogravure printing line(s) that print flexible packaging or print flexible packaging and non-flexible packaging on the same line shall cause or allow VOM containing cleaning materials, including used cleaning towels, associated with the subject flexographic or rotogravure printing line(s) to be kept, stored, or disposed of in any manner other than in closed containers, or conveyed from one location to another in any manner other than in closed containers or pipes, except when specifically in use.

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

### **Section 219.402 Applicability**

- a) Except as otherwise provided in Section 219.401, the limitations of Section 219.401 of this Subpart ~~Part~~ apply to all flexographic and rotogravure printing lines at a subject source. All sources with flexographic and/or rotogravure printing lines are subject sources unless:

- 1) Total maximum theoretical emissions of VOM from all flexographic and rotogravure printing line(s) (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)), at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices, or
  - 2) A federally enforceable permit or SIP revision for all flexographic and rotogravure printing line(s) at a source requires the owner or operator to limit production or capacity of these printing line(s) to reduce total VOM emissions from all flexographic and rotogravure printing line(s) to 90.7 Mg (100 tons) or less per calendar year before the application of capture systems and control devices.
- b) The limitations of Section 219.401(d) shall apply to all owners or operators of flexographic or rotogravure printing line(s) that print flexible packaging, or that print flexible packaging and non-flexible packaging on the same line, at a source where the combined emissions of VOM from all flexographic and rotogravure printing lines total 6.8 kg/day (15 lbs/day) or more (including solvents used for cleanup operations associated with flexographic and rotogravure printing line(s)), in the absence of air pollution control equipment.
- ~~b)~~ Upon achieving compliance with this Subpart, the flexographic and rotogravure printing lines are not required to meet Subpart G (Sections 219.301 or 219.302 of this Part). Flexographic and rotogravure printing lines exempt from this Subpart are subject to Subpart G (Sections 219.301 or 219.302 of this Part). Rotogravure or flexographic equipment used for both roll printing and paper coating is subject to this Subpart.
- ~~d)~~ Once subject to the limitations of Section 219.401 of this Part, a flexographic or rotogravure printing line is always subject to the limitations of Section 219.401 of this Part.
- ~~e)~~ Any owner or operator of any flexographic or rotogravure printing line that is exempt from any of the limitations of Section 219.401 of this Part because of the criteria in this Section is subject to the recordkeeping and reporting requirements specified in Section 219.404(b) and (f) of this Part, as applicable.

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

### **Section 219.403 Compliance Schedule**

Every owner or operator of a flexographic and/or rotogravure printing line shall comply with the applicable requirements of Section 219.401 and Section 219.404 of this Part in accordance with the applicable compliance schedule(s) specified in subsection (a), (b), (c), ~~(d)~~, (e), (f), or (g) below:

- a) No owner or operator of a flexographic or rotogravure printing line which is exempt from the limitations of Section 219.401 of this Part because of the criteria in Section 219.402(a) of this Part shall operate said printing 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 219.404(b) of this Part.
- b) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 219.401(a)(1) of this Part shall operate said printing 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 219.401(a)(1) of this Part and Section 219.404(c) of this Part.
- c) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 219.401(b)(1) of this Part shall operate said printing 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 219.401(b)(1) and Section 219.404(d) of this Part.
- d) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 219.401(c)(1)(D) of this Part shall operate said printing 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, the applicable provisions in Sections 219.401(c) and Section 219.404(e) of this Part.
- e) No owner or operator of a flexographic or rotogravure printing line complying by means of Section 219.401(a)(2), (b)(2), or (b)(3) or complying by means of Section 219.401(c)(2), (c)(3), or (c)(4), shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 219.401(a)(2), (b)(2) or (b)(3), and Section 219.401(c), as applicable, and all applicable provisions in Section 219.404 of this Part.
- f) No owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 219.401(d) and Section 219.404(g) of this Part.
- g) No owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, and which is exempt from the limitations of Section 219.401(d) because of the criteria in Section 219.402(b) of this Part shall operate said printing line on or after May 1, 2010, unless the owner or operator has complied with, and continues to comply with, Section 219.402(b) and Section 219.404(f) of this Part.

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



### Section 219.404 Recordkeeping and Reporting

- a) The VOM content of each coating and ink 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 printing line which is exempted from any of the limitations of Section 219.401 of this Part because of the criteria in Section 219.402(a) of this Part shall comply with the following:
- 1) By a date consistent with Section 219.106 of this Part, or, for flexographic or rotogravure printing lines that print flexible packaging or that print flexible packaging and non-flexible packaging on the same line, by May 1, 2010, the owner or operator of a flexographic ~~or~~ rotogravure printing line to which this subsection is applicable shall certify to the Agency that the flexographic and rotogravure printing line is exempt under the provisions of Section 219.402(a) of this Part. Such certification shall include:
    - A) A declaration that the flexographic and rotogravure printing line is exempt from the limitations of the criteria in Section 219.401 because of Section 219.402(a) of this Part, and
    - B) Calculations which demonstrate that total maximum theoretical emissions of VOM from all flexographic and rotogravure printing lines at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices. Total maximum theoretical emissions of VOM for a flexographic or rotogravure printing source is the sum of maximum theoretical emissions of VOM from each flexographic and rotogravure printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year before the application of capture systems and control devices for each flexographic and rotogravure printing line at the source:

$$E_p = A \times B + 1095 (C \times D \times F)$$

where:

$E_p$  = Total maximum theoretical emissions VOM from one flexographic or rotogravureprinting line in units of kg/year (lbs/year);

- A = Weight of VOM per volume of solids of the coating or ink with the highest VOM content as applied each year on the printing line in units of kg VOM/l (lbs VOM/gal) of coating or ink solids;
- B = Total volume of solids for all coatings and inks that can potentially be applied each year on the printing line in units of 1/year (gal/year). The method by which the owner or operator accurately calculated the volume of each coating and ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;
- C = Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of ~~kg~~<sup>Kg</sup>/l (lbs VOM/gal) of such material;
- D = The greatest volume of cleanup material or solvent used in any 8-hour period; and
- F = The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.
- 2) On and after a date consistent with Section 219.106 of this Part, the owner or operator of a facility referenced in this subsection shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:
- A) The name and identification number of each coating and ink as applied on each printing line.
- B) The VOM content and the volume of each coating and ink as applied each year on each printing line.
- 3) On and after a date consistent with Section 219.106 of this Part, the owner or operator of a facility exempted from the limitations of Section 219.401 of this Part because of the criteria in Section 219.402(a) of this Part shall notify the Agency of any record showing that total maximum theoretical emissions of VOM from all printing lines exceed 90.7 Mg (100 tons) in any calendar year 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.

- c) Any owner or operator of a printing line subject to the limitations of Section 219.401 of this Part and complying by means of Section 219.401(a) of this Part shall comply with the following:
- 1) By a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance from an existing subject printing line from Section 219.401(b) or Section 219.401(c) to Section 219.401(a) of this Part, the owner or operator of a subject printing line shall certify to the Agency that the printing line will be in compliance with Section 219.401(a) of this Part on and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or on and after the initial start-up date. The owner or operator of a printing line subject to the requirements in Section 219.401(a)(2)(B) shall certify in accordance with this subsection (c)(1) even if the owner or operator of such line submitted a certification prior to January 1, 2010. Such certification shall include:
    - A) The name and identification number of each coating and ink as applied on each printing line.
    - B) The VOM content of each coating and ink as applied each day on each printing line.
  - 2) On and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 219.401 of this Part and complying by means of Section 219.401(a) of this Part 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 and ink as applied on each printing line.
    - B) The VOM content of each coating and ink as applied each day on each printing line.
  - 3) On and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
    - A) Any record showing violation of Section 219.401(a) of this Part 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 Section 219.401 of this Part from Section 219.401(a) to Section 219.401(b) or (c) of this Part, the owner or operator shall comply with all requirements of subsection (d)(1) or (e)(1) of this Section, respectively. Upon changing the method of compliance with Section 219.401 of this Part from Section 219.401(a) to Section 219.401(b) or (c) of this Part, 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 printing line subject to the limitations of Section 219.401 of this Part and complying by means of Section 219.401(b) of this Part shall comply with the following:
- 1) By a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing subject printing line from Section 219.401(a) or (c) to Section 219.401(b) of this Part, the owner or operator of the subject printing line shall certify to the Agency that the printing line will be in compliance with Section 219.401(b) of this Part on and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or -on and after the initial start-up date. The owner or operator of a printing line subject to the requirements in Section 219.401(b)(3) shall certify in accordance with this subsection (d)(1) even if the owner or operator of such line submitted a certification prior to January 1, 2010. Such certification shall include:
- A) The name and identification number of each printing line which will comply by means of Section 219.401(b) of this Part.
- B) The name and identification number of each coating and ink available for use on each printing line.
- C) The VOM content of each coating and ink as applied each day on each printing line.
- D) The method by which the owner or operator will accurately calculate the volume, or weight of solids, as applicable, of each coating and ink as applied each day on each printing line.
- E) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) of this Section.
- F) 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 Section 219.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 219.401 and complying by means of Section 219.401(b) of this Part shall collect and record all of the following information each day for each printing line and maintain the information at the source for a period of three years:
  - A) The name and identification number of each coating and ink as applied on each printing line.
  - B) The VOM content and the volume, or weight of solids, as applicable, of each coating and ink as applied each day on each printing line.
  - C) The daily-weighted average VOM content of all coatings and inks as applied on each printing line.
  
- 3) On and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
  - A) Any record showing violation of Section 219.401(b) of this Part 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 Section 219.401 of this Part from Section 219.401(b) to Section 219.401(a) or 219.401(c) of this Part, 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 Section 219.401 of this Part from Section 219.401(b) to Section 219.401(a) or (c) of this Part, 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 printing line subject to the limitations of Section 219.401 of this Part and complying by means of Section 219.401(c) of this Part shall comply with the following:
  - 1) By a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing printing line from Section 219.401(a) or (b) to Section 219.401(c) of this Part, the owner or operator of the subject printing line shall either:

- A) Perform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with Section 219.401(c) of this Part on and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or on and after the initial start-up date; or-
  - B) If not required to perform such testing pursuant to Section 219.401(c)(6), submit a certification to the Agency that includes:
    - i) A declaration that the owner or operator is not required to perform testing pursuant to Section 219.401(c)(6);
    - ii) The date(s) that testing demonstrating compliance with Section 219.401(c)(3) was performed; and
    - iii) The date(s) that the results of such testing were submitted to the Agency;
- 2) On and after a date consistent with Section 219.106 of this Part, or Section 219.403(e), as applicable, or on and after the initial start-up date, the owner or operator of a printing line subject to the limitations of Section 219.401 of this Part and complying by means of Section 219.401(c) of this Part shall collect and record all of the following information each day for each printing line and maintain the information at the facility for a period of three years:
- A) Control device monitoring data.
  - B) A log of operating time for the capture system, control device, monitoring equipment and the associated printing line.
  - C) 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 Section 219.403(e), as applicable, the owner or operator of a subject printing line shall notify the Agency in the following instances:
- A) Any record showing violation of Section 219.401(c) of this Part, 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 Section 219.401 of this Part from Section 219.401(c) to Section 219.401(a) or (b) of this Part, 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 Section 219.401 of this Part from Section 219.401(c) to Section 219.401(a) or (b) of this Part, the owner or operator shall comply with all requirements of subsection (c) or (d) of this Section, respectively.
- 4) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, the owner or operator of a printing line subject to the requirements in Section 219.401(c)(3) or (c)(4) shall submit to the Agency records documenting the date the printing line was constructed at the subject source and the date the control device for such printing line was constructed at the subject source.
- f) Any owner or operator of a flexographic or rotogravure printing line that prints flexible packaging, or that prints flexible packaging and non-flexible packaging on the same line, and which is exempt from the limitations of Section 219.401(d) because of the criteria in Section 219.402(b) shall:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, and upon modification of a printing line, submit a certification to the Agency that includes:
- A) A declaration that the source is exempt from the requirements in Section 219.401(d) because of the criteria in Section 219.402(b);
- B) Calculations which demonstrate that combined emissions of VOM from all flexographic and rotogravure printing lines (including inks and solvents used for cleanup operations associated with such printing lines) at the source never equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment; and
- 2) Notify the Agency in writing if the combined emissions of VOM from all flexographic and rotogravure printing lines (including inks and solvents used for cleanup operations associated with the flexographic and rotogravure lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs.
- g) Any owner or operator of a printing line subject to the limitations of Section 219.401(d) shall:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever

is later, submit a certification to the Agency describing the practices and procedures that the owner or operator will follow to ensure compliance with the limitations of Section 219.401(d); and

2) Notify the Agency of any violation of Section 219.401(d) by sending a description of the violation and copies of records documenting such violations to the Agency within 30 days following the occurrence of the violation.

h) All records required by subsections (f) and (g) of this Section shall be retained for at least three years and shall be made available to the Agency upon request.

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

### **Section 219.405 Lithographic Printing: Applicability**

~~a) Until March 15, 1996, the limitations of Section 219.406 of this Subpart apply to all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with the heatset web offset lithographic printing line(s)) at a source subject to the requirements of this Subpart. All sources with heatset web offset lithographic printing lines are sources subject to the requirements of this Subpart unless:~~

~~1) Total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with the heatset web offset lithographic printing line(s)) at the source never exceed 90.7 Mg (100 tons) per calendar year in the absence of air pollution control equipment; or~~

~~2) A federally enforceable permit or SIP revision for all heatset web offset lithographic printing line(s) at a source requires the owner or operator to limit production or capacity of these printing line(s) to reduce total VOM emissions from all heatset web offset lithographic printing line(s) to 90.7 Mg (100 tons) per calendar year or less in the absence of air pollution control equipment.~~

~~b) Any owner or operator of any heatset web offset lithographic printing line that is exempt from the limitations in Section 219.406 of this Subpart because of the criteria in subsection (a) of this Section shall be subject to the recordkeeping and reporting requirements in Section 219.406(b)(1) of this Subpart.~~

~~ae) On and after March 15, 1996, Everyevery owner or operator of lithographic printing line(s) is subject to the recordkeeping and reporting requirements in Section 219.411 of this Subpart.~~



bd) ~~On and after March 15, 1996, Prior to May 1, 2010, Sections 219.407 through 219.410 of this Subpart shall apply to:~~

- 1) All owners or operators of heatset web offset lithographic printing line(s) unless:
  - A) Total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with heatset web offset lithographic printing lines) at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices. To determine a source's total maximum theoretical emissions of VOM for the purposes of this subsection, the owner or operator shall use the calculations set forth in Section ~~219.411(a)(1)(C)~~~~406(b)(1)(A)(ii)~~ of this Subpart; or
  - B) Federally enforceable permit conditions or SIP revision for all heatset web offset lithographic printing line(s) at the source requires the owner or operator to limit production or capacity of these printing line(s) to total VOM emissions of 90.7 Mg/yr (100 TPY) or less, before the application of capture systems and control devices;
- 2) All owners or operators of ~~heatset web offset, non heatset web offset, or sheet fed offset~~ lithographic printing line(s), unless the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) never exceed 45.5 kg/day (100 lbs/day), as determined in accordance with Section 219.411(a)(1)(B), before the application of capture systems and control devices.

c) On and after May 1, 2010:

- 1) The requirements in Sections 219.407(a)(1)(B) through (a)(1)(E) and 219.407(b) and all applicable provisions in Sections 219.409 through 219.411 of this Subpart shall apply to all owners or operators of heatset web offset lithographic printing line(s), if the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) ever exceed 45.5 kg/day (100 lbs/day), calculated in accordance with Section 219.411(b)(2)(B), before the application of capture systems and control devices;
- 2) The requirements in Sections 219.407(a)(1)(A) and 219.407(a)(2) through (a)(5) and all applicable provisions in Sections 219.409 through 219.411 of this Subpart shall apply to all owners or operators of lithographic printing line(s) if the combined emissions of VOM from all lithographic

printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) ever equal or exceed 6.8 kg/day (15 lbs/day), calculated in accordance with Section 219.411(b)(1)(B), before the application of capture systems and control devices;

3) Notwithstanding subsection (c)(2) of this Section, at sources where the combined emissions of VOM from all lithographic printing line(s) at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), calculated in accordance with Section 219.411(b)(1)(B), before the application of capture systems and control devices, the following exclusions shall apply unless the owner or operator of the source certifies pursuant to Section 219.411(g)(1)(B) that the source will not make use of any such exclusions:

A) The requirements of Sections 219.407(a)(1)(A), 219.407(a)(2), and 219.407(a)(3) of this Subpart shall not apply to lithographic printing line(s) with a total fountain solution reservoir of less than 3.8 liters (1 gallon);

B) The requirements of Section 219.407(a)(3) of this Subpart shall not apply to sheet-fed offset lithographic printing line(s) with maximum sheet size of 11x17 inches or smaller;

C) The requirements of Section 219.407(a)(4) of this Subpart shall not apply to up to a total of 416.3 liters (110 gallons) per year of cleaning materials used on all lithographic printing lines at the source;

D) The requirements of Section 219.407(a)(4)(A)(i) shall not apply to lithographic printing lines at the source. Instead, the requirements of Section 219.407(a)(4)(A)(ii) shall apply to such lines.

de) If a lithographic printing line at a source is or becomes subject to one or more of the limitations in Sections ~~219.406~~ or 219.407 of this Subpart, the lithographic printing line(s) at the source are always subject to the applicable provisions of this Subpart.

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

**~~Section 219.406 Provisions Applying to Heatset Web Offset Lithographic Printing Prior to March 15, 1996~~**

a) ~~Emission Standards and Limitations. No owner or operator of a heatset web offset printing line at a source that meets or exceeds the applicability levels in~~

Section 219.405(a) of this Subpart may cause or allow the operation of such heatset web offset printing line(s) unless the owner or operator meets the requirements in subsections (a)(1) or (a)(2) of this Section and the requirements in subsections (a)(3) and (a)(4) of this Section. The owner or operator shall demonstrate compliance with this Section by using the applicable test methods and procedures specified in Section 219.105(a), (d), and (f) of this Part and by complying with the recordkeeping and reporting requirements specified in subsection (b) of this Section.

- 1) ~~An afterburner system is installed and operated that reduces 90 percent of the VOM emissions (excluding methane and ethane) from the dryer exhaust; or~~
    - 2) ~~The fountain solution contains no more than 8 percent, by weight, of VOM and a condensation recovery system is installed and operated that removes at least 75 percent of the non-isopropyl alcohol organic materials from the dryer exhaust; and~~
  - 3) ~~The control device is equipped with the applicable monitoring equipment specified in Section 219.105(d)(2) of this Part and the monitoring equipment is installed, calibrated, operated and maintained according to manufacturer's specifications at all times when the control device is in use; and~~
  - 4) ~~The control device is operated at all times when the printing line is in operation.~~
- b) ~~Recordkeeping and Reporting. The VOM content of each fountain solution and ink and the efficiency of each 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 subsection.~~
- 1) ~~Any owner or operator of a lithographic printing line which is exempted from the limitations of subsection (a) of this Section because of the criteria in 219.405(a) of this Subpart shall comply with the following:~~
    - A) ~~By a date consistent with Section 219.106 of this Part, the owner or operator of a heatset web offset lithographic printing line to which subsection (b)(1) of this Section is applicable shall certify to the Agency that the heatset web offset lithographic printing line is exempt under the provisions of Section 219.405(a) of this Subpart. Such certification shall include:~~

- i) A declaration that the heatset web offset lithographic printing line is exempt from the limitations of subsection (a) of this Section because of the criteria in Section 219.405(a) of this Subpart; and
- ii) Calculations which demonstrate that total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines at the source never exceed 90.7 Mg (100 tons) per calendar year before the application of air pollution control equipment. Total maximum theoretical emissions of VOM for a heatset web offset lithographic printing source is the sum of maximum theoretical emissions of VOM from each heatset web offset lithographic printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year in the absence of air pollution control equipment for each heatset web offset lithographic printing line at the source:

$$E_p = (R \times A \times B) + (C \times D) + 1095 (F \times G \times H)$$

where:

$E_p$  = Total maximum theoretical emissions of VOM from one heatset web offset printing line in units of kg/yr (lb/yr);

$A$  = Weight of VOM per volume of solids of ink with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal) of solids;

$B$  = Total volume of solids for all inks that can potentially be applied each year on the printing line in units of l/yr (gal/yr). The instrument or method by which the owner or operator accurately measured or calculated the volume of each ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;

$C$  = Weight of VOM per volume of fountain solution with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal);

$D$  = The total volume of fountain solution that can potentially be used each year on the printing line in

units of 1/yr (gal/yr). ~~The instrument and/or method by which the owner or operator accurately measured or calculated the volume of each fountain solution used and the amount that can potentially be used each year on the printing line shall be described in the certification to the Agency;~~

- F = ~~Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of kg/l (lb/gal) of such material;~~
- G = ~~The greatest volume of cleanup material or solvent used in any 8-hour period; and~~
- H = ~~The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.~~
- R = ~~The multiplier representing the amount of VOM not retained in the substrate being used. For paper, R = 0.8. For foil, plastic, or other impervious substrates, R = 1.0.~~

- B) ~~On and after a date consistent with Section 219.106 of this Part, the owner or operator of a heatset web offset lithographic printing line to which subsection (b)(1) of this Section is applicable shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:~~
- i) ~~The name and identification of each fountain solution and ink as applied on each printing line; and~~
  - ii) ~~The VOM content and the volume of each fountain solution and ink as applied each year on each printing line.~~
- C) ~~On and after a date consistent with Section 219.106 of this Part, the owner or operator of a source exempted from the limitations of subsection (a) of this Section because of the criteria in Section 219.405(a) of this Subpart shall notify the Agency of any record showing that total maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines exceed 90.7 Mg (100 tons) in any calendar year in the absence of air pollution control equipment by sending a copy of such record to the Agency within 30 days after the exceedence occurs.~~

- 2) ~~Any owner or operator of a printing line subject to the limitations of subsection (a) of this Section and complying by means of subsection (a)(1) of this Section shall comply with the following:~~
- A) ~~By a date consistent with Section 219.106 of this Part, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing printing line from subsection (a)(2) to (a)(1) of this Section, perform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with subsection (a)(1) of this Section on and after a date consistent with Section 219.106 of this Part, or on and after the initial start-up date;~~
  - B) ~~On and after a date consistent with Section 219.106 of this Part, or on and after the initial start-up date, collect and record the following information each day for each printing line and maintain the information at the source for a period of three years:~~
    - i) ~~Control device monitoring data;~~
    - ii) ~~A log of operating time for the control device, monitoring equipment and the associated printing line; and~~
    - iii) ~~A maintenance log for the control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages;~~
  - C) ~~On and after a date consistent with Section 219.106 of this Part, notify the Agency in the following instances:~~
    - i) ~~Any violation of subsection (a)(1) of this Section shall be reported to the Agency, in writing, within 30 days following the occurrence of the violation;~~
    - ii) ~~Any record showing a violation of subsection (a)(1) of this Section shall be reported by sending a copy of such record to the Agency within 30 days following the occurrence of the violation; and~~
    - iii) ~~At least 30 calendar days before changing the method of compliance with subsection (a) of this Section from subsection (a)(1) to (a)(2) of this Section, the owner or operator shall comply with all requirements of subsection (b)(3)(A) of this Section. Upon changing the method of~~

~~compliance with subsection (a) of this Section from subsection (a)(1) to (a)(2) of this Section, the owner or operator shall comply with all requirements of subsection (b)(3) of this Section.~~

- 3) ~~Any owner or operator of a printing line subject to the limitations of subsection (a) of this Section and complying by means of subsection (a)(2) of this Section shall:~~
- A) ~~By a date consistent with Section 219.106 of this Part, or upon initial start-up of a new printing line, or upon changing the method of compliance for an existing printing line from subsection (a)(1) to (a)(2) of this Section, perform all tests and submit to the Agency and the USEPA the results of all tests and calculations necessary to demonstrate that the subject printing line will be in compliance with subsection (a)(2) of this Section on and after a date consistent with Section 219.106 of this Part, or on and after the initial start-up date;~~
  - B) ~~On and after a date consistent with Section 219.106 of this Part, or on and after the initial start-up date, collect and record the following information each day for each printing line and maintain the information at the source for a period of three years:~~
    - i) ~~The VOM content of the fountain solution used each day on each printing line;~~
    - ii) ~~A log of operating time for the control device and the associated printing line; and~~
    - iii) ~~A maintenance log for the control device detailing all routine and non-routine maintenance performed including dates and duration of any outages;~~
  - C) ~~On and after a date consistent with Section 219.106 of this Part, notify the Agency in the following instances:~~
    - i) ~~Any violation of subsection (a)(2) shall be reported to the Agency, in writing, within 30 days following the occurrence of the violation;~~
    - ii) ~~Any record showing a violation of subsection (a)(2) of this Section shall be reported by sending a copy of such record to the Agency within 30 days following the occurrence of the violation; and~~

- iii) ~~At least 30 calendar days before changing the method of compliance with subsection (a) of this Section from subsection (a)(2) to (a)(1) of this Section, the owner or operator shall comply with all requirements of subsection (b)(2)(A) of this Section. Upon changing the method of compliance with subsection (a) of this Section from subsection (a)(2) to (a)(1) of this Section, the owner or operator shall comply with all requirements of subsection (b)(2) of this Section.~~
- e) ~~Compliance Schedule. Every owner or operator of a heatset web offset lithographic printing line shall comply with the applicable requirements of subsections (a) and (b) of this Section in accordance with the applicable compliance schedule specified in subsections (c)(1), (c)(2), or (c)(3) of this Section:~~
- 1) ~~No owner or operator of a heatset web offset lithographic printing line which is exempt from the limitations of subsection (a) of this Section because of the criteria in Section 219.405(a) of this Subpart shall operate said printing 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 219.405(a) and 219.406(b)(1) of this Subpart.~~
  - 2) ~~No owner or operator of a heatset web offset lithographic printing line complying by means of subsection (a)(1) of this Section shall operate said printing 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, subsections (a)(1), (a)(3), (a)(4) and (b)(2) of this Section.~~
  - 3) ~~No owner or operator of a heatset web offset lithographic printing line complying by means of subsection (a)(2) of this Section shall operate said printing 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 subsections (a)(2), (a)(3), (a)(4) and (b)(3) of this Section.~~

(Source: Repealed at 34 Ill. Reg. \_\_\_\_, effective\_\_\_\_)

### **Section 219.407 Emission Limitations and Control Requirements for Lithographic Printing Lines ~~On and After March 15, 1996~~**

- a) ~~On and after March 15, 1996, no~~No owner or operator of lithographic printing line(s) subject to the requirements of this Subpart shall:
- 1) Cause or allow the operation of any heatset web offset lithographic printing line unless:



- A) The total VOM content in the as-applied fountain solution meets one of the following conditions:
- i) 1.6 percent or less, by ~~weight~~volume;
  - ii) 3 percent or less, by ~~weight~~volume, and the temperature of the fountain solution is maintained below 15.6°C (60°F), measured at the reservoir or the fountain tray; or
  - iii) 5 percent or less, by ~~weight~~volume, and the as-applied fountain solution contains no alcohol;
- B) The air pressure in the dryer is maintained lower than the air pressure of the press room, such that air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating;
- C) An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced as follows:
- i) Prior to May 1, 2010, by 90 percent, by weight, or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon); and
  - ii) On and after May 1, 2010, by at least 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010; by at least 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon);
- D) The afterburner complies with all monitoring provisions specified in Section 219.410(c) of this Subpart~~is equipped with the applicable monitoring equipment specified in Section 219.105(d)(2) of this Part and the monitoring equipment is installed, calibrated, operated, and maintained according to manufacturer's specifications at all times when the afterburner is in use; and~~
- E) The afterburner is operated at all times when the printing line is in operation, except the afterburner may be shut down between November 1 and April 1 as provided in Section 219.107 of this Part;

- 2) Cause or allow the operation of any non-heatset web offset lithographic printing line unless the VOM content of the as-applied fountain solution is 5 percent or less, by weight/volume, and the as-applied fountain solution contains no alcohol;
  - 3) Cause or allow the operation of any sheet-fed offset lithographic printing line unless:
    - A) The VOM content of the as-applied fountain solution is 5 percent or less, by weight/volume; or
    - B) The VOM content of the as-applied fountain solution is 8.5 percent or less, by weight/volume, and the temperature of the fountain solution is maintained below 15.6°C (60°F), measured at the reservoir or the fountain tray;
  - 4) Cause or allow the use of a cleaning solution on any lithographic printing line unless:
    - A) The VOM content of the as-used cleaning solution is less than or equal to:
      - i) 30 percent, by weight; or
      - ii) On and after May 1, 2010, for owners or operators of sources that meet the applicability criteria in Section 219.405(c)(3) and do not certify pursuant to Section 219.411(g)(1)(B) that the source will not make use of any of the exclusions in Section 219.405(c)(3), 70 percent, by weight; or
    - B) The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
  - 5) Cause or allow VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line to be kept, stored or disposed of in any manner other than in closed containers, except when specifically in use.
- b) An owner or operator of a heatset web offset lithographic printing line subject to the requirements of Section 219.407(a)(1)(C) of this Subpart may use a control device other than an afterburner, if:
- 1) The control device reduces VOM emissions from the press dryer exhaust(s) as follows:

- A) Prior to May 1, 2010, by at least 90 percent, by weight, or to a maximum control device exhaust outlet concentration of 20 ppmv (as carbon); and
- B) On and after May 1, 2010:
  - i) By at least 90 percent, by weight, for control devices first constructed at the source prior to January 1, 2010;
  - ii) By at least 95 percent, by weight, for control devices first constructed at the source on or after January 1, 2010; or
  - iii) To a maximum control device exhaust outlet concentration of 20 ppmv (as carbon);
- 2) The owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the control device; and
- 3) The use of the control device with testing, monitoring, and recordkeeping in accordance with this plan is approved by the Agency and USEPA as federally enforceable permit conditions.

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

**Section 219.408 Compliance Schedule for Lithographic Printing On and After March 15, 1996**

- a) ~~Every owner or operator of a lithographic printing line subject to one or more of the control requirements of Section 219.407 of this Subpart shall comply with the applicable requirements of Sections 219.407 through 219.411 of this Subpart on and after March 15, 1996, or upon initial start-up, whichever is later.~~
- b) ~~No owner or operator of a lithographic printing line which is exempt from the limitations of Section 219.407 of this Subpart because of the criteria in Section 219.405(d) of this Subpart, shall operate said printing line on or after March 15, 1996, unless the owner or operator has complied with, and continues to comply with, Sections 219.405(d) and 219.411(a) of this Subpart.~~

(Source: Repealed at 34 Ill. Reg. \_\_\_\_, effective\_\_\_\_)

**Section 219.409 Testing for Lithographic Printing On and After March 15, 1996**

- a) Testing to demonstrate compliance with the requirements of Section 219.407 of this Subpart shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Subpart. Such testing

shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing.

- b) The methods and procedures of Section 219.105(d) and (f) shall be used for testing to demonstrate compliance with the requirements of Section 219.407(a)(1)(C) or (b)(1) of this Subpart, as follows:
- 1) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 219.112 of this Part. The sampling sites for determining efficiency in reducing VOM from the dryer exhaust shall be located between the dryer exhaust and the control device inlet, and between the outlet of the control device and the exhaust to the atmosphere;
  - 2) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 219.112 of this Part;
  - 3) To determine the VOM concentration of the exhaust stream entering and exiting the control device, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference at Section 219.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:
    - A) The allowable outlet concentration of VOM from the control device is less than 50 ppmv, as carbon;
    - B) The VOM concentration at the inlet of the control device and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and
    - C) Due to the high efficiency of the control device, the anticipated VOM concentration at the control device exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency

apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;

- 4) Notwithstanding the criteria or requirements in Method 25 which specifies a minimum probe temperature of 129°C (265°F), the probe must be heated to at least the gas stream temperature of the dryer exhaust, typically close to 176.7°C (350°F);
  - 5) During testing, the printing line(s) shall be operated at representative operating conditions and flow rates; and
  - 6) During testing, an air flow direction indicating device, such as a smoke stick, shall be used to demonstrate 100 percent emissions capture efficiency for the dryer in accordance with Section 219.407(a)(1)(B) of this Subpart.
- c) Testing to demonstrate compliance with the VOM content limitations in Section 219.407(a)(1)(A), (a)(2), (a)(3) and (a)(4)(A) of this Subpart, and to determine the VOM content of fountain solutions, fountain solution additives, cleaning solvents, cleaning solutions, and inks (pursuant to the requirements of Section 219.411(a)(1)(B) ), (b)(1)(B), or (b)(2)(B) of this Subpart, as applicable), shall be conducted upon request of the Agency or as otherwise specified in this Subpart, as follows:
- 1) The applicable test methods and procedures specified in Section 219.105(a) of this Part shall be used; provided, however, Method 24, incorporated by reference at Section 219.112 of this Part, shall be used to demonstrate compliance; or
  - 2) The manufacturer's specifications for VOM content for fountain solution additives, cleaning solvents, and inks may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part; provided, however, Method 24 shall be used to determine compliance.
- d) Testing to demonstrate compliance with the requirements of Section 219.407(b) of this Subpart shall be conducted as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 219.407(b) of this Subpart.
- e) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 219.110 of this Part.

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

**Section 219.410 Monitoring Requirements for Lithographic Printing**

- a) Fountain Solution Temperature.
  - 1) The owner or operator of any lithographic printing line(s) relying on the temperature of the fountain solution to demonstrate compliance shall install, maintain, and continuously operate a temperature monitor of the fountain solution in the reservoir or fountain tray, as applicable.
  - 2) The temperature monitor must be capable of reading with an accuracy of 1°C or 2°F and must be attached to an automatic, continuous recording device such as a strip chart, recorder, or computer, with at least the same accuracy, that is installed, calibrated and maintained in accordance with the manufacturer's specifications. If the automatic, continuous recording device malfunctions, the owner or operator shall record the temperature of the fountain solution at least once every two operating hours. The automatic, continuous recording device shall be repaired or replaced as soon as practicable.
  
- b) Fountain Solution VOM Content. The owner or operator of any lithographic printing line(s) subject to Section 219.407(a)(1)(A), (a)(2) or (a)(3) of this Subpart shall:
  - 1) For a fountain solution to which VOM is not added automatically:
    - A) Maintain records of the VOM content of the fountain solution in accordance with Section 219.411(ee)(2)(C); or
    - B) Take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determine compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:
      - i) With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications, against measurements performed to determine compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or

- ii) With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;
  - 2) For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. Records must be retained of the VOM content of the fountain solution in accordance with Section 219.411(e)(2)(D) of this Subpart. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications.
- c) Afterburners For Heatset Web Offset Lithographic Printing Line(s).
 

If an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to Section 219.407(a)(1)(C) of this Subpart shall:

  - 1) Install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3°C or 5°F on the afterburner in accordance with Section 219.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the afterburner is operating; and
  - 2) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor.
- d) Other Control Devices for Heatset Web Offset Lithographic Printing Line(s). If a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to this Subpart shall install, maintain, calibrate and operate such monitoring equipment

as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 219.407(b) of this Subpart.

- e) Cleaning Solution.
- 1) The owner or operator of any lithographic printing line relying on the VOM content of the cleaning solution to comply with Section 219.407(a)(4)(A) of this Subpart must:
    - A) For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):
      - i) Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and
      - ii) Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with Section 219.407(a)(4)(A) of this Subpart;
    - B) For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in Section 219.411(f)(2) of this Subpart.
  - 2) The owner or operator of any lithographic printing line relying on the vapor pressure of the cleaning solution to comply with Section 219.407(a)(4)(B) of this Subpart must keep records for such cleaning solutions used on any such line(s) as set forth in Section 219.411(f)(2)(C) of this Subpart.

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

### **Section 219.411 Recordkeeping and Reporting for Lithographic Printing**

- a) Exempt units prior to May 1, 2010. An owner or operator of lithographic printing line(s) exempt from the limitations of Section 219.407 of this Subpart prior to May 1, 2010, because of the criteria in Section 219.405(b) of this Subpart shall comply with the following:
  - 1) ~~By March 15, 1996, Upon~~ upon initial start-up of a new lithographic printing line, and upon modification of a lithographic printing line, submit a certification to the Agency that includes:



- A) A declaration that the source is exempt from the control requirements in Section 219.407 of this Part because of the criteria in Section 219.405(~~b~~) of this Subpart;
- B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, as follows:
- i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
  - ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the tests methods and procedures set forth in Section 219.409(c) of this Subpart shall be used;
  - iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv) To determine VOM emissions from fountain solutions and cleaning solvents used on lithographic printing line(s) at the source, no retention factor is used;
- C) Either a declaration that the source, through federally enforceable permit conditions, has limited its maximum theoretical emissions of VOM from all heatset web offset lithographic printing lines (including solvents used for cleanup operations associated with

heatset web offset printing lines) at the source to no more than 90.7 Mg (100 tons) per calendar year before the application of capture systems and control devices or calculations which demonstrate that the source's total maximum theoretical emissions of VOM do not exceed 90.7 Mg/yr (100 TPY). ~~To determine the source's total maximum theoretical emissions for the purposes of this subsection, the owner or operator shall use the calculations set forth in Section 219.406(b)(1)(A)(ii) of this Subpart; and~~ Total maximum theoretical emissions of VOM for a heatset web offset lithographic printing source is the sum of maximum theoretical emissions of VOM from each heatset web offset lithographic printing line at the source. The following equation shall be used to calculate total maximum theoretical emissions of VOM per calendar year in the absence of air pollution control equipment for each heatset web offset lithographic printing line at the source:

$$E_p = (R \times A \times B) + (C \times D) + 1095 (F \times G \times H)$$

Where:

$E_p$  = Total maximum theoretical emissions of VOM from one heatset web offset printing line in units of kg/yr (lb/yr);

$A$  = Weight of VOM per volume of solids of ink with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal) of solids;

$B$  = Total volume of solids for all inks that can potentially be applied each year on the printing line in units of 1/yr (gal/yr). The method by which the owner or operator accurately calculated the volume of each ink as applied and the amount that can potentially be applied each year on the printing line shall be described in the certification to the Agency;

$C$  = Weight of VOM per volume of fountain solution with the highest VOM content as applied each year on the printing line in units of kg/l (lb/gal);

$D$  = The total volume of fountain solution that can potentially be used each year on the printing line in units of 1/yr (gal/yr). The method by which the owner or operator accurately calculated the volume of each fountain solution used and the amount that can potentially be used each year on the printing line shall be described in the certification to the Agency;

- F = Weight of VOM per volume of material for the cleanup material or solvent with the highest VOM content as used each year on the printing line in units of kg/l (lb/gal) of such material;
- G = The greatest volume of cleanup material or solvent used in any 8-hour period; and
- H = The highest fraction of cleanup material or solvent which is not recycled or recovered for offsite disposal during any 8-hour period.
- R = The multiplier representing the amount of VOM not retained in the substrate being used. For paper, R = 0.8. For metal, plastic, or other impervious substrates, R = 1.0;

D) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 219.409(c)(1) of this Subpart;

2) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. Such notification shall include a copy of all records of such event.

b) Exempt units on and after May 1, 2010.

1) Lithographic printing lines exempt pursuant to Section 219.405(c)(2). By May 1, 2010, or upon initial start-up of a new lithographic printing line, whichever is later, and upon modification of a lithographic printing line, an owner or operator of lithographic printing line(s) exempt from the limitations in Section 219.407 of this Subpart because of the criteria in Section 219.405(c)(2) of this Subpart shall submit a certification to the Agency that includes the information specified in either subsections (b)(1)(A), (b)(1)(B), and (b)(1)(D) of this Section, or subsections (b)(1)(A) and (b)(1)(C) of this Section, as applicable. An owner or operator complying with subsection (b)(1)(B) shall also comply with the requirements in subsection (b)(1)(E) of this Section. An owner or operator complying with subsection (b)(1)(C) shall also comply with the requirements in subsection (b)(1)(F) of this Section:

- A) A declaration that the source is exempt from the requirements in Section 219.407 of this Part because of the criteria in Section 219.405(c)(2) of this Subpart;
- B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing line(s) (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing line(s)) at the source do not equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, as follows:
- i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
  - ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the test methods and procedures set forth in Section 219.409(c) of this Subpart shall be used;
  - iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv) To determine VOM emissions from cleaning solutions used on lithographic printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop

towels that are not kept in closed containers, no emission adjustment factor is used;

- C) As an alternative to the calculations in subsection (b)(1)(B), above, a statement that the source uses less than the amount of material specified in subsections (b)(1)(C)(i) or (ii), below, as applicable, during each calendar month. A source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM based upon compliance with such material use limitations. If the source exceeds this amount of material use in a given calendar month, the owner or operator must, within 15 days of the end of that month, complete the emissions calculations of subsection (b)(1)(B) to determine daily emissions for applicability purposes. If the source ever exceeds this amount of material use for six consecutive calendar months, it is no longer eligible to use this subsection as an alternative to the calculations in subsection (b)(1)(B). If a source has both heatset web offset and either nonheatset web offset or sheetfed lithographic printing operations, or has all three types of printing operations, the owner or operator may not make use of this alternative and must use the calculations in subsection (b)(1)(B).
- i) The sum of all sheetfed and nonheatset web offset lithographic printing operations at the source: 242.3liters (64 gallons) of cleaning solvent and fountain solution additives, combined; or
- ii) The sum of all heatset web offset lithographic printing operations at the source: 204.1 kg (450 lbs) of ink, cleaning solvent, and fountain solution additives, combined.
- D) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 219.409(c)(1) of this Subpart;
- E) For sources complying with subsection (b)(1)(B) of this Section, notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. If such emissions of VOM at the source equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), the source

shall comply with the requirements in subsection (b)(2) of this Section.

F) For sources complying with subsection (b)(1)(C) of this Section, comply with the following:

- i) Maintain material use records showing that the source uses less than the amount of material specified in subsections (b)(1)(C)(i) and (b)(1)(C)(ii) during each calendar month, or, if the source exceeds the material use limitations, records showing that the source exceeded the limitations but did not emit 6.8 kg/day (15 lbs/day) or more of VOM;
- ii) Notify the Agency in writing if the source exceeds the material use limitations for six consecutive calendar months, or if the source changes its method of compliance from subsection (b)(1)(C) to subsection (b)(1)(B) of this Section, within 30 days after the event occurs;

2) Heatset web offset lithographic printing lines exempt pursuant to Section 219.405(c)(1) but not exempt pursuant to Section 219.405(c)(2). By May 1, 2010, or upon initial start-up of a new heatset web offset lithographic printing line, whichever is later, and upon modification of a heatset web offset lithographic printing line, an owner or operator of heatset web offset lithographic printing line(s) that are exempt from the limitations in Section 219.407 of this Subpart pursuant to the criteria in Section 219.405(c)(1) of this Subpart, but that are not exempt pursuant to the criteria in Section 219.405(c)(2) of this Subpart, shall submit a certification to the Agency that includes the information specified in subsections (b)(2)(A) through (b)(2)(C) of this Section. Such owner or operator shall also comply with the requirements in subsection (b)(2)(D) of this Section:

- A) A declaration that the source is exempt from the control requirements in Section 219.407 of this Part because of the criteria in Section 219.405(c)(1) of this Subpart, but is not exempt pursuant to the criteria in Section 219.405(c)(2) of this Subpart;
- B) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, as follows (the following methodology shall also be used to calculate whether a source exceeds 45.5 kg/day (100 lbs/day) for purposes of determining eligibility for the exclusions set forth in

Section 219.405(c)(3), in accordance with Section 219.411(g)(2)(A)(i):

- i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that lithographic printing lines at the source were in operation;
  - ii) To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the tests methods and procedures set forth in Section 219.409(c) of this Subpart shall be used;
  - iii) To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s).
  - iv) To determine VOM emissions from cleaning solvents used on lithographic printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from cleaning solution in shop towels if the VOM composite vapor pressure of such cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor is used;
- C) A description and the results of all tests used to determine the VOM content of inks, fountain solution additives, and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 219.409(c)(1) of this Subpart;

D) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs.

c2) Unless complying with subsections (b)(1)(C) and (b)(1)(F) of this Section, an owner or operator of lithographic printing line(s) subject to the requirements of subsection (a) or (b) of this Section shall ~~On and after March 15, 1996,~~ collect and record either the information specified in subsection (c)(1) or (c)(2)(a)(2)(A) or (a)(2)(B) of this Section for all lithographic printing lines at the source:

1A) Standard recordkeeping, including the following:

Ai) The name and identification of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;

Bi) A daily record which shows whether a lithographic printing line at the source was in operation on that day;

Ciii) The VOM content and the volume of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;

Diiv) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; ~~and~~

Ev) The VOM emissions in lbs/day for the month, calculated in accordance with Section 219.411(a)(1)(B), 219.411(b)(1)(B), or 219.411(b)(2)(B) of this Subpart, as applicable;

2B) Purchase and inventory recordkeeping, including the following:

Ai) The name, identification, and VOM content of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;

Bi) Inventory records from the beginning and end of each month indicating the total volume of each fountain solution additive,



lithographic ink, and cleaning solvent to be used on any lithographic printing line at the source;

- C~~ii~~) Monthly purchase records for each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line at the source;
- D~~iv~~) A daily record which shows whether a lithographic printing line at the source was in operation on that day;
- E~~v~~) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to subsections (c)(2)(A), (c)(2)(B), and (c)(2)(C)(a)(2)(B)(i), (a)(2)(B)(ii) and (a)(2)(B)(iii) of this Section; ~~and~~
- F~~vi~~) The VOM emissions in lbs/day for the month, calculated in accordance with Section 219.411(a)(1)(B), 219.411(b)(1)(B), or 219.411(b)(2)(B) of this Subpart, as applicable;

~~3) On and after March 15, 1996, notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs. Such notification shall include a copy of all records of such event.~~

db) An owner or operator of a heatset web offset lithographic printing line(s) subject to the control requirements of Section 219.407(a)(1)(C) or (b)(1) of this Subpart shall comply with the following:

- 1) By May 1, 2010, ~~March 15, 1996~~, upon initial start-up of a new printing line, and upon initial start-up of a new control device for a heatset web offset printing line, submit a certification to the Agency that includes the following:
  - A) An identification of each heatset web offset lithographic printing line at the source;
  - B) A declaration that each heatset web offset lithographic printing line is in compliance with the requirements of Section 219.407 (a)(1)(B), (a)(1)(C), (a)(1)(D) and (a)(1)(E) or (b) of this Subpart, as appropriate;

- C) The type of afterburner or other approved control device used to comply with the requirements of Section 219.407(a)(1)(C) or (b)(1) of this Subpart and the date that such device was first constructed at the source;
  - D) The control requirements in Section 219.407(a)(1)(C) or (b)(1) of this Subpart with which the lithographic printing line is complying;
  - E) The results of all tests and calculations necessary to demonstrate compliance with the control requirements of Section 219.407(a)(1)(C) or (b)(1) of this Subpart, as applicable; and
  - F) A declaration that the monitoring equipment required under Section 219.407(a)(1)(D) or (b) of this Subpart, as applicable, has been properly installed and calibrated according to manufacturer's specifications;
- 2) If testing of the afterburner or other approved control device is conducted pursuant to Section 219.409(b) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
- A) A declaration that all tests and calculations necessary to demonstrate whether the lithographic printing line(s) is in compliance with Section 219.407(a)(1)(C) or (b)(1) of this Subpart, as applicable, have been properly performed;
  - B) A statement whether the lithographic printing line(s) is or is not in compliance with Section 219.407(a)(1)(C) or (b)(1) of this Subpart, as applicable; and
  - C) The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with Section 219.410(c) or (d) of this Subpart, as applicable;
- 3) ~~On and after March 15, 1996,~~ Except as provided in subsection (d)(3)(D)(ii) of this Section, collect and record daily the following information for each heatset web offset lithographic printing line subject to the requirements of Section 219.407(a)(1)(C) or (b)(1) of this Subpart:
- A) Afterburner or other approved control device monitoring data in accordance with Section 219.410(c) or (d) of this Subpart, as applicable;

- B) A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;
  - C) A maintenance log for the afterburner or other approved control device and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages; and
  - D) A log detailing checks on the air flow direction or air pressure of the dryer and press room to ~~ensure~~insure compliance with the requirements of Section 219.407(a)(1)(B) of this Subpart as follows:
    - i) Prior to May 1, 2010, at least once per 24-hour period while the line is operating; and
    - ii) On and after May 1, 2010, at least once per calendar month while the line is operating;
- 4) ~~On and after March 15, 1996, Notify~~notify the Agency in writing of any violation of Section 219.407(a)(1)(C) or (b)(1) of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;
- 5) If changing its method of compliance between subsections (a)(1)(C) and (b) of Section 219.407 of this Subpart, certify compliance for the new method of compliance in accordance with subsection (b)(1) of this Section at least 30 days before making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the requirements of Section 219.407(a)(1)(B), (a)(1)(C), (a)(1)(D) and (a)(1)(E) of this Subpart, or Section 219.407(b) of this Subpart, as applicable.
- ee) An owner or operator of a lithographic printing line subject to Section 219.407(a)(1)(A), (a)(2), or (a)(3) of this Subpart, shall:
- 1) By May 1, 2010~~March 15, 1996~~, and upon initial start-up of a new lithographic printing line, certify to the Agency that fountain solutions used on each lithographic printing line will be in compliance with the applicable VOM content limitation. Such certification shall include:
    - A) Identification of each lithographic printing line at the source, by type, e.g., heatset web offset, non-heatset web offset, or sheet-fed offset;

- B) Identification of each centralized fountain solution reservoir and each lithographic printing line that it serves;
  - C) A statement that the fountain solution will comply with the VOM content limitations in Section 219.407(a)(1)(A), (a)(2), or (a)(3), as applicable;~~The VOM content limitation with which each fountain solution will comply;~~
  - D) Initial documentation that each type of fountain solution will comply with the applicable VOM content limitation(s), including copies of manufacturer's specifications, test results, if any, formulation data and calculations;
  - E) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitation, e.g., a refractometer, hydrometer, conductivity meter, or recordkeeping procedures with detailed description of the compliance methodology; and
  - F) A sample of the records that will be kept pursuant to Section 219.411~~(ee)~~(2) of this Subpart.
- 2) ~~On and after March 15, 1996, Collecte~~collect and record the following information for each fountain solution:
- A) The name and identification of each batch of fountain solution prepared for use on one or more lithographic printing lines, the lithographic printing line(s) or centralized reservoir using such batch of fountain solution, and the applicable VOM content limitation for the batch;
  - B) If an owner or operator uses a hydrometer, refractometer, or conductivity meter, pursuant to Section 219.410(b)(1)(B), to demonstrate compliance with the applicable VOM content limit in Section 219.407(a)(1)(A), (a)(2), or (a)(3) of this Subpart:
    - i) The date and time of preparation, and each subsequent modification, of the batch;
    - ii) The results of each measurement taken in accordance with Section 219.410(b) of this Subpart;
    - iii) Documentation of the periodic calibration of the meter in accordance with the manufacturer's specifications, including date and time of calibration, personnel

conducting, identity of standard solution, and resultant reading; and

- iv) Documentation of the periodic temperature adjustment of the meter, including date and time of adjustment, personnel conducting and results;
- C) If the VOM content of the fountain solution is determined pursuant to Section 219.410(b)(1)(A) of this Subpart, for each batch of as-applied fountain solution:
- i) Date and time of preparation and each subsequent modification of the batch;
  - ii) Volume or weight, as applicable, and VOM content of each component used in, or subsequently added to, the fountain solution batch;
  - iii) Calculated VOM content of the as-applied fountain solution; and
  - iv) Any other information necessary to demonstrate compliance with the applicable VOM content limits in Section 219.407(a)(1)(A), (a)(2) and (a)(3) of this Subpart, as specified in the source's operating permit;
- D) If the VOM content of the fountain solution is determined pursuant to Section 219.410(b)(2) of this Subpart, for each setting:
- i) VOM content limit corresponding to each setting;
  - ii) Date and time of initial setting and each subsequent setting;
  - iii) Documentation of the periodic calibration of the automatic feed equipment in accordance with the manufacturer's specifications; and
  - iii) Any other information necessary to demonstrate compliance with the applicable VOM content limits in Sections 219.407(a)(1)(A), (a)(2) and (a)(3) of this Subpart, as specified in the source's operating permit.
- E) If the owner or operator relies on the temperature of the fountain solution to comply with the requirements in Section 219.407(a)(1)(A)(ii) or (a)(3)(B) of this Subpart:

- i) The temperature of the fountain solution at each printing line, as monitored in accordance with Section 219.410(a); and
    - ii) A maintenance log for the temperature monitoring devices and automatic, continuous temperature recorders detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
  - 3) Notify the Agency in writing of any violation of Section 219.407 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation, ~~and~~
  - 4) ~~If changing its method of demonstrating compliance with the applicable VOM content limitations in Section 219.407 of this Subpart, or changing the method of demonstrating compliance with the VOM content limitations for fountain solutions pursuant to Section 219.409 of this Subpart, certify compliance for such new method(s) in accordance with subsection (c)(1) of this Section within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 219.407 of this Subpart.~~
- f~~d~~) For lithographic printing line cleaning operations, an owner or operator of a lithographic printing line subject to the requirements of Section 219.407 of this Subpart shall:
- 1) By May 1, 2010, ~~March 15, 1996~~, and upon initial start-up of a new lithographic printing line, certify to the Agency that all cleaning solutions, other than those excluded pursuant to Section 219.405(c)(3)(C), and the handling of all cleaning materials, will be in compliance with the requirements of Section 219.407(a)(4)(A) or (a)(4)(B) and (a)(5) of this Subpart, and such certification shall also include:
    - A) ~~Identification of each VOM-containing cleaning solution used on each lithographic printing line;~~
    - AB) A statement that the cleaning solution will comply with the limitations in Section 219.407(a)(4); ~~The limitation with which each VOM-containing cleaning solution will comply, i.e., the VOM content or vapor pressure;~~
    - C) ~~Initial documentation that each VOM-containing cleaning solution will comply with the applicable limitation, including copies of manufacturer's specifications, test results, if any, formulation data and calculations;~~

BD) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;

CE) A sample of the records that will be kept pursuant to Section 219.411(f)(2) of this Subpart; and

DE) A description of the practices that ~~ensure~~ assure that VOM-containing cleaning materials are kept in closed containers;

2) ~~On and after March 15, 1996, Collecte~~ collect and record the following information for each cleaning solution used on each lithographic printing line:

A) For each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 219.407(a)(4)(A) of this Subpart and which is prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 219.409(c) of this Subpart;

iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

v) The VOM content of the as-used cleaning solution, with supporting calculations; and

vi) A calibration log for the automatic equipment, detailing periodic checks;

B) For each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 219.407(a)(4)(A) of this Subpart, and which is not prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

- ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 219.409(c) of this Subpart;
  - iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
  - v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part;
- C) For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Section 219.407(a)(4)(B) of this Subpart:
- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 219.409(e) of this Subpart; For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 219.105(a) and 219.110 of this Part;
  - iv) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - v) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Section 219.409(e) of this Subpart. For cleaning solutions that are



used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 219.105(a) and 219.110 of this Part;

- D) The date, time and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any;
- 3) ~~On and after March 15, 1996, Notify~~ notify the Agency in writing of any violation of Section 219.407 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;~~;~~ and
- 4) ~~If changing its method of demonstrating compliance with the requirements of Section 219.407(a)(4) of this Subpart, or changing between automatic and manual methods of preparing cleaning solutions, certify compliance for such new method in accordance with subsection (d)(1) of this Section, within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 219.407(a)(4) of this Subpart.~~
- g) The owner or operator of lithographic printing line(s) subject to one or more of the exclusions set forth in Section 219.405(c)(3) shall:
- 1) By May 1, 2010, or upon initial start-up of a new lithographic printing line that is subject to one or more of the exclusions set forth in Section 219.405(c)(3), whichever is later, submit a certification to the Agency that includes either:
- A) A declaration that the source is subject to one or more of the exclusions set forth in Section 219.405(c)(3) and a statement indicating which such exclusions apply to the source; or
- B) A declaration that the source will not make use of any of the exclusions set forth in Section 219.405(c)(3);
- 3) Unless the source has certified in accordance with subsection (g)(1)(B) of this Section that it will not make use of any of the exclusions set forth in Section 219.405(c)(3):

- A) Collect and record the following information for all lithographic printing lines at the source:
- i) Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, determined in accordance with the calculations in Section 219.411(b)(2)(B) of this Subpart;
  - ii) The amount of cleaning materials used on lithographic printing lines at the source that does not comply with the cleaning material limitations in Section 219.407(a)(4) of this Subpart.
- B) Notify the Agency in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 45.5 kg/day (100 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs
- 3) If changing from utilization of the exclusions set forth in Section 219.405(c)(3) to opting out of such exclusions pursuant to subsection (g)(1)(B) of this Section, or if there is a change at the source such that the exclusions no longer apply, certify compliance in accordance with subsection (g)(1)(B) of this Section within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of Section 219.407 of this Subpart.
- 4) If changing from opting out of the exclusions set forth in Section 219.405(c)(3) pursuant to subsection (g)(1)(B) of this Section to utilization of such exclusions, certify compliance in accordance with subsection (g)(1)(A) of this Section within 30 days after making such change.
- he) The owner or operator shall maintain all records required by this Section at the source for a minimum period of three years and shall make all records available to the Agency upon request.
- i) Provisions for calculation of emissions from heatset web offset lithographic printing operations. To calculate VOM emissions from heatset web offset lithographic printing operations for purposes other than the applicability thresholds specified in Section 219.405 of this Subpart, sources may use the

following emission adjustment factors (for Annual Emissions Reports or permit limits, for example):

- 1) A factor of 0.80 may be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s);
- 2) To determine VOM emissions from fountain solutions that contain no alcohol, an emission adjustment factor may be used to account for carryover into the dryer, except when using an impervious substrate. The VOM emitted from the fountain solution shall be calculated using the following equation:

$$\text{VOM}_{fs} = 0.30 \times \text{VOM}_{tot} + (0.70 \times \text{VOM}_{tot}) \times (1-DE)$$

Where: \_\_\_\_\_

VOM<sub>tot</sub> = Total VOM in the fountain solution;

VOM<sub>fs</sub> = VOM emitted from the fountain solution;

DE = Destruction efficiency of the control device on the associated dryer, in decimal form (i.e., 95% control is represented as 0.95). If no control device is present, DE = 0;

For fountain solutions that contain alcohol, impervious substrates such as metal or plastic, or non-heatset lithographic presses, no emission adjustment factor is used;

- 3) To determine VOM emissions from cleaning solutions used on heatset web offset lithographic printing line(s) at the source, an emission adjustment factor of 0.50 may be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. To determine VOM emissions from automatic blanket wash solution with a VOM composite vapor pressure of less than 10 mmHg measured at 20°C (68°F), an emission adjustment factor may be used to account for carryover into the dryer, except when using an impervious substrate. The VOM emitted from the automatic blanket wash solution shall be calculated using the following equation.

$$\text{VOM}_{bw} = 0.60 \times \text{VOM}_{tot} + (0.40 \times \text{VOM}_{tot}) \times (1-DE)$$

Where: \_\_\_\_\_

VOM<sub>tot</sub> = Total VOM in the blanket wash;

VOM<sub>bw</sub> = VOM emitted from the blanket wash;

DE = Destruction efficiency of the control device on the associated dryer, in decimal form (i.e., 95% control is represented as 0.95). If no control device is present, DE = 0;

For cleaning solutions with VOM composite vapor pressures of equal to or greater than 10 mmHg measured at 20°C (68°F), for shop towels that are not kept in closed containers, and for impervious substrates such as metal or plastic, no emission adjustment factor is used.

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

**Section 219.412 Letterpress Printing Lines: Applicability**

- a) Except as provided in subsection (b) of this Section, on and after May 1, 2010, the limitations in Sections 219.413 through 219.416 of this Subpart shall apply to:
  - 1) All heatset web letterpress printing line(s) at a source if all heatset web letterpress printing line(s) (including solvents used for cleanup operations associated with heatset web letterpress printing line(s)) at the source have a total potential to emit 22.7 Mg (25 tons) or more of VOM per year; and
  - 2) All letterpress printing line(s) at a source where the combined emissions of VOM from all letterpress printing line(s) at the source (including solvents used for cleanup operations associated with the letterpress printing line(s)) ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, calculated in accordance with Section 219.417(b)(1)(B).
- b) Notwithstanding subsection (a) of this Section, the requirements of Section 219.413(a)(2) of this Subpart shall not apply to up to 416.3 liters (110 gallons) per year of cleaning materials used on letterpress printing lines at a subject source;
- c) On and after May 1, 2010, the recordkeeping and reporting requirements in Section 219.417 of this Subpart shall apply to all owners or operators of letterpress printing line(s).
- d) If a letterpress printing line at a source is or becomes subject to one or more of the limitations in Section 219.413 of this Subpart, the letterpress printing line(s) at the source are always subject to the applicable provisions of this Subpart.

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

**Section 219.413 Emission Limitations and Control Requirements for Letterpress Printing Lines**

- a) No owner or operator of letterpress printing line(s) subject to the requirements of this Subpart shall:
- 1) Cause or allow the operation of any heatset web letterpress printing line that meets the applicability requirements of Section 219.412(a)(1) unless:
    - A) The air pressure in the dryer is maintained lower than the air pressure of the press room, such that air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating;
    - B) An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced as follows:
      - i) By 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010;
      - ii) By 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or
      - iii) To a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon);
    - C) The afterburner complies with all monitoring provisions specified in Section 219.416(a) of this Subpart; and
    - D) The afterburner is operated at all times when the printing line is in operation, except the afterburner may be shut down between November 1 and April 1 as provided in Section 219.107 of this Part;
  - 2) Cause or allow the use of a cleaning solution on any letterpress printing line unless:
    - A) The VOM content of the as-used cleaning solution is less than or equal to 70 percent, by weight; or
    - B) The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);

- 3) Cause or allow VOM-containing cleaning materials, including used cleaning towels, associated with any letterpress printing line to be kept, stored, or disposed of in any manner other than in closed containers, except when specifically in use.
- b) An owner or operator of a heatset web letterpress printing line subject to the requirements of subsection (a)(1)(B) of this Section may use a control device other than an afterburner, if:
- 1) The control device reduces VOM emissions from the press dryer exhaust(s) as follows:
    - A) By 90 percent, by weight, for control devices first constructed at the source prior to January 1, 2010;
    - B) By 95 percent, by weight, for control devices first constructed at the source on or after January 1, 2010; or
    - C) To a maximum control device exhaust outlet concentration of 20 ppmv (as carbon);
  - 2) The owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for the control device; and
  - 3) The use of the control device in accordance with this plan is approved by the Agency and USEPA as federally enforceable permit conditions.

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

### **Section 219.415 Testing for Letterpress Printing Lines**

- a) Testing to demonstrate compliance with the requirements of Section 219.413 of this Subpart shall be conducted by the owner or operator within 90 days after a request by the Agency, or as otherwise specified in this Subpart. Such testing shall be conducted at the expense of the owner or operator, and the owner or operator shall notify the Agency in writing 30 days in advance of conducting such testing to allow the Agency to be present during such testing.
- b) The methods and procedures of Section 219.105(d) and (f) shall be used for testing to demonstrate compliance with the requirements of Section 219.413(a)(1)(B) or (b)(1) of this Subpart, as follows:
  - 1) To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part.

The sampling sites for determining efficiency in reducing VOM from the dryer exhaust shall be located between the dryer exhaust and the control device inlet, and between the outlet of the control device and the exhaust to the atmosphere;

- 2) To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part;
- 3) To determine the VOM concentration of the exhaust stream entering and exiting the control device, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A, incorporated by reference in Section 219.112 of this Part. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:
  - A) The allowable outlet concentration of VOM from the control device is less than 50 ppmv, as carbon;
  - B) The VOM concentration at the inlet of the control device and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and
  - C) Due to the high efficiency of the control device, the anticipated VOM concentration at the control device exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25;
- 4) Notwithstanding the criteria or requirements in Method 25 which specifies a minimum probe temperature of 129° C (265° F), the probe must be heated to at least the gas stream temperature of the dryer exhaust, typically close to 176.7° C (350° F);
- 5) During testing, the printing line(s) shall be operated at representative operating conditions and flow rates; and

- 6) During testing, an air flow direction indicating device, such as a smoke stick, shall be used to demonstrate 100 percent emissions capture efficiency for the dryer in accordance with Section 219.413(a)(1)(A) of this Subpart.
- c) Testing to demonstrate compliance with the VOM content limitations in Section 219.413(a)(2)(A) of this Subpart, and to determine the VOM content of cleaning solvents, cleaning solutions, and inks (pursuant to the requirements of Section 219.417(b)(1)(B) of this Subpart), shall be conducted upon request of the Agency, or as otherwise specified in this Subpart, as follows:
- 1) The applicable test methods and procedures specified in Section 219.105(a) of this Part shall be used; provided, however, Method 24, incorporated by reference in Section 219.112 of this Part, shall be used to demonstrate compliance; or
  - 2) The manufacturer's specifications for VOM content for cleaning solvents and inks may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part; provided, however, Method 24 shall be used to determine compliance.
- d) Testing to demonstrate compliance with the requirements of Section 219.413(b) of this Subpart shall be conducted as set forth in the owner or operator's plan approved by the Agency and USEPA as federally enforceable permit conditions pursuant to Section 219.413(b) of this Subpart.
- e) Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted in accordance with the applicable methods and procedures specified in Section 219.110 of this Part.

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

### **Section 219.416 Monitoring Requirements for Letterpress Printing Lines**

- a) Afterburners For Heatset Web Letterpress Printing Line(s). If an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line subject to Section 219.413(a)(1)(B) of this Subpart shall:
- 1) Install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3° C or 5° F on the afterburner in accordance with Section 219.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the afterburner is operating; and



- 2) Install, calibrate, operate, and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor.
- b) Other Control Devices for Heatset Web Letterpress Printing Line(s). If a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web letterpress printing line subject to this Subpart shall install, maintain, calibrate, and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 219.413(b) of this Subpart.
- c) Cleaning Solution.
- 1) The owner or operator of any letterpress printing line relying on the VOM content of the cleaning solution to comply with Section 219.413(a)(2)(A) of this Subpart must:
- A) For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):
- i) Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and
- ii) Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with Section 219.413(a)(2)(A) of this Subpart;
- B) For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in Section 219.417(c)(2) of this Subpart.
- 2) The owner or operator of any letterpress printing line relying on the vapor pressure of the cleaning solution to comply with Section 219.413(a)(2)(B) of this Subpart must keep records for such cleaning solutions used on any such line(s) as set forth in Section 219.417(e)(2)(C) of this Subpart.

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

**Section 219.417 Recordkeeping and Reporting for Letterpress Printing Lines**

- a) By May 1, 2010, or upon initial start-up of a new heatset web letterpress printing line, whichever is later, and upon modification of a heatset web letterpress printing line, an owner or operator of a heatset web letterpress printing line exempt from any of the limitations of Section 219.413 of this Subpart because of the criteria in Section 219.412(a)(1) shall submit a certification to the Agency that includes:
- 1) A declaration that the source is exempt from the requirements in Section 219.413 of this Subpart because of the criteria in Section 219.412(a)(1) of this Subpart;
  - 2) Calculations which demonstrate that the source's total potential to emit VOM does not equal or exceed 22.7 Mg (25 tons) per year;
- b) An owner or operator of a letterpress printing line exempt from any of the limitations of Section 219.413 of this Subpart because of the criteria in Section 219.412(a)(2) shall:
- 1) By May 1, 2010, or upon initial start-up of a new letterpress printing line, whichever is later, and upon modification of a letterpress printing line, submit a certification to the Agency that includes the information specified in either subsections (b)(1)(A) through (b)(1)(C) of this Section, or subsections (b)(1)(A) and (b)(1)(D) of this Section, as applicable:
    - A) A declaration that the source is exempt from the control requirements in Section 219.413 of this Part because of the criteria in Section 219.412(a)(2) of this Subpart;
    - B) Calculations which demonstrate that combined emissions of VOM from all letterpress printing lines (including inks and solvents used for cleanup operations associated with the letterpress printing lines) at the source never equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, as follows:
      - i) To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all letterpress printing lines at the source (including solvents used for cleanup operations associated with the letterpress printing lines) and divide this amount by the number of days during that calendar month that letterpress printing lines at the source were in operation;
      - ii) To determine the VOM content of the inks and cleaning solvents, the tests methods and procedures set forth in Section 219.415(c) of this Subpart shall be used;

- iii) To determine VOM emissions from inks used on letterpress printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks except when using an impervious substrate, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate except when using an impervious substrate. For impervious substrates such as metal or plastic, no emission adjustment factor is used. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv) To determine VOM emissions from cleaning solutions used on letterpress printing line(s) at the source, an emission adjustment factor of 0.50 shall be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is less than 10 mmHg measured at 20°C (68°F) and the shop towels are kept in closed containers. Otherwise, no retention factor is used;
- C) A description and the results of all tests used to determine the VOM content of inks and cleaning solvents, and a declaration that all such tests have been properly conducted in accordance with Section 219.415(c)(1) of this Subpart;
- D) As an alternative to the calculations in subsection (b)(1)(B), above, a statement that the source uses less than the amount of material specified in subsections (b)(1)(D)(i) or (b)(1)(D)(ii), below, as applicable, during each calendar month. A source may determine that it emits below 6.8 kg/day (15 lbs/day) of VOM based upon compliance with such material use limitations. If the source exceeds this amount of material use in a given calendar month, the owner or operator must, within 15 days of the end of that month, complete the emissions calculations of subsection (b)(1)(B) to determine daily emissions for applicability purposes. If the source ever exceeds this amount of material use for six consecutive calendar months, it is no longer eligible to use this subsection as an alternative to the calculations in subsection (b)(1)(B). If a source has both heatset web and either nonheatset web or sheetfed letterpress printing operations, or has all three types of printing operations, the owner or operator may not make use of this alternative and must use the calculations in subsection (b)(1)(B).

- i) The sum of all sheetfed and nonheatset web letterpress printing operations at the source: 242.3 liters (64 gallons) of cleaning solvent; or
  - ii) The sum of all heatset web letterpress printing operations at the source: 204.1 kg (450 lbs) of ink and cleaning solvent.
- 2) For sources complying with subsection (b)(1)(B) of this Section, notify the Agency in writing if the combined emissions of VOM from all letterpress printing lines (including inks and solvents used for cleanup operations associated with the letterpress printing lines) at the source ever equal or exceed 6.8 kg/day (15 lbs/day), in the absence of air pollution control equipment, within 30 days after the event occurs.
- 3) For sources complying with subsection (b)(1)(D) of this Section, comply with the following:
  - i) Maintain material use records showing that the source uses less than the amount of material specified in subsections (b)(1)(D)(i) and (b)(1)(D)(ii) during each calendar month, or, if the source exceeds the material use limitations, records showing that the source exceeded the limitations but did not emit 6.8 kg/day (15 lbs/day) or more of VOM;
  - ii) Notify the Agency in writing if the source exceeds the material use limitations for six consecutive calendar months, or if the source changes its method of compliance from subsection (b)(1)(D) to subsection (b)(1)(B) of this Section, within 30 days after the event occurs;
- c) Unless complying with subsection (b)(1)(D) and (b)(3) of this Section, on and after May 1, 2010, an owner or operator of a letterpress printing line subject to the requirements in subsections (a) or (b) of this Section shall collect and record either the information specified in subsection (c)(1) or (c)(2) of this Section for all letterpress printing lines at the source:
  - 1) Standard recordkeeping, including the following:
    - A) The name and identification of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
    - B) A daily record which shows whether a letterpress printing line at the source was in operation on that day;

- C) The VOM content and the volume of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
  - D) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each cleaning solvent and letterpress ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; and
  - E) The VOM emissions in lbs/day for the month, calculated in accordance with Section 219.417(b)(1)(B) of this Subpart;
- 2) Purchase and inventory recordkeeping, including the following:
- A) The name, identification, and VOM content of each letterpress ink and cleaning solvent used on any letterpress printing line, recorded each month;
  - B) Inventory records from the beginning and end of each month indicating the total volume of each letterpress ink, and cleaning solvent to be used on any letterpress printing line at the source;
  - C) Monthly purchase records for each letterpress ink and cleaning solvent used on any letterpress printing line at the source;
  - D) A daily record which shows whether a letterpress printing line at the source was in operation on that day;
  - E) The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each cleaning solvent and letterpress ink (with the applicable ink VOM emission adjustment factor) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to subsections (c)(2)(A), (c)(2)(B), and (c)(2)(C) of this Section; and
  - F) The VOM emissions in lbs/day for the month, calculated in accordance with Section 219.417(b)(1)(B) of this Subpart;
- d) An owner or operator of a heatset web letterpress printing line(s) subject to the control requirements of Section 219.413(a)(1)(B) or (b)(1) of this Subpart shall comply with the following:
- 1) By May 1, 2010, or upon initial start-up of a new printing line, whichever is later, and upon initial start-up of a new control device for a heatset web

printing line, submit a certification to the Agency that includes the following:

- A) An identification of each heatset web letterpress printing line at the source;
  - B) A declaration that each heatset web letterpress printing line is in compliance with the requirements of Section 219.413 (a)(1) or (b) of this Subpart, as appropriate;
  - C) The type of afterburner or other approved control device used to comply with the requirements of Section 219.413(a)(1)(B) or (b)(1) of this Subpart, and the date that such device was first constructed at the subject source;
  - D) The control requirements in Section 219.413(a)(1)(B) or (b)(1) of this Subpart with which the letterpress printing line is complying;
  - E) The results of all tests and calculations necessary to demonstrate compliance with the control requirements of Section 219.413(a)(1)(B) or (b)(1) of this Subpart, as applicable; and
  - F) A declaration that the monitoring equipment required under Section 219.413(a)(1)(C) or (b) of this Subpart, as applicable, has been properly installed and calibrated according to manufacturer's specifications;
- 2) If testing of the afterburner or other approved control device is conducted pursuant to Section 219.415(b) of this Subpart, the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
- A) A declaration that all tests and calculations necessary to demonstrate whether the letterpress printing line(s) is in compliance with Section 219.413(a)(1)(B) or (b)(1) of this Subpart, as applicable, have been properly performed;
  - B) A statement whether the heatset web letterpress printing line(s) is or is not in compliance with Section 219.413(a)(1)(B) or (b)(1) of this Subpart, as applicable; and
  - C) The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with Section 219.416(a) or (b) of this Subpart, as applicable;

- 3) Except as provided in subsection (d)(3)(D) of this Section, collect and record daily the following information for each heatset web letterpress printing line subject to the requirements of Section 219.413(a)(1)(B) or (b)(1) of this Subpart:
- A) Afterburner or other approved control device monitoring data in accordance with Section 219.416(a) or (b) of this Subpart, as applicable;
  - B) A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;
  - C) A maintenance log for the afterburner or other approved control device and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages; and
  - D) A log detailing checks on the air flow direction or air pressure of the dryer and press room to ensure compliance with the requirements of Section 219.413(a)(1)(A) of this Subpart at least once per calendar month while the line is operating;
- 4) Notify the Agency in writing of any violation of Section 219.413(a)(1)(B) or (b)(1) of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;
- 5) If changing the method of compliance between Sections 219.413 (a)(1)(B) and 219.413(b) of this Subpart, certify compliance for the new method of compliance in accordance with Section 219.413(b) at least 30 days before making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the requirements of Section 219.413(a)(1) of this Subpart, or Section 219.413(b) of this Subpart, as applicable.
- e) For letterpress printing line cleaning operations, an owner or operator of a letterpress printing line subject to the requirements of Section 219.413 of this Subpart shall:
- 1) By May 1, 2010, or upon initial start-up of a new letterpress printing line, whichever is later, certify to the Agency that all cleaning solutions, other than those excluded pursuant to Section 219.412(b), and the handling of all cleaning materials will be in compliance with the requirements of Section 219.413(a)(2)(A) or (a)(2)(B) and (a)(3) of this Subpart. Such certification shall include:

- A) A statement that the cleaning solution will comply with the limitations in Section 219.413(a)(2);
  - B) Identification of the method(s) that will be used to demonstrate continuing compliance with the applicable limitations;
  - C) A sample of the records that will be kept pursuant to Section 219.417(e)(2) of this Subpart; and
  - D) A description of the practices that ensure that VOM-containing cleaning materials are kept in closed containers;
- 2) Collect and record the following information for each cleaning solution used on each letterpress printing line:
- A) For each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 219.413(a)(2)(A) of this Subpart and which is prepared at the source with automatic equipment:
    - i) The name and identification of each cleaning solution;
    - ii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 219.415(c) of this Subpart;
    - iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
    - iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
    - v) The VOM content of the as-used cleaning solution, with supporting calculations; and
    - vi) A calibration log for the automatic equipment, detailing periodic checks;
  - B) For each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with Section 219.413(a)(2)(A) of this Subpart, and which is not prepared at the source with automatic equipment:



- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with Section 219.415(c) of this Subpart;
  - iv) The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
  - v) The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM content may be used if such manufacturer's specifications are based on results of tests of the VOM content conducted in accordance with methods specified in Section 219.105(a) of this Part;
- C) For each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with Section 219.413(a)(2)(B) of this Subpart:
- i) The name and identification of each cleaning solution;
  - ii) Date and time of preparation, and each subsequent modification, of the batch;
  - iii) The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 219.415(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 219.105(a) and 219.110 of this Part;
  - iv) The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and

- v) The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Section 219.415(e) of this Subpart. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in Sections 219.105(a) and 219.110 of this Part;
- D) The date, time, and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any;
- E) The amount of cleaning materials used on letterpress printing lines at the source that do not comply with the cleaning material limitations set forth in Section 219.413(a)(2) of this Subpart;
- 3) Notify the Agency in writing of any violation of Section 219.413 of this Subpart within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation.
- f) The owner or operator shall maintain all records required by this Section at the source for a minimum period of three years and shall make all records available to the Agency upon request.

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

IT IS SO ORDERED.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on January 7, 2010, by a vote of 5-0.




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John T. Therriault, Assistant Clerk  
Illinois Pollution Control Board