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2 SUBTITLE B: AIR POLLUTION
3 CHAPTER I: POLLUTION CONTROL BOARD
4 SUBCHAPTER c: EMISSIONS STANDARDS AND LIMITATIONS
5 FOR STATIONARY SOURCES
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296	219.875	Applicability of Subpart BB (Renumbered)
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300	219.883	Special Requirements for Compliance Plan (Repealed)
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375 AUTHORITY: Implementing Section 10 and authorized by Sections 27, 28 and 28.5 of the
 376 Environmental Protection Act [415 ILCS 5/10, 27, 28 and 28.5].

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378 SOURCE: Adopted in R91-8 at 15 Ill. Reg. 12491, effective August 16, 1991; amended in R91-
 379 24 at 16 Ill. Reg. 13597, effective August 24, 1992; amended in R91-30 at 16 Ill. Reg. 13883,
 380 effective August 24, 1992; emergency amendment in R93-12 at 17 Ill. Reg. 8295, effective May
 381 24, 1993, for a maximum of 150 days; amended in R93-9 at 17 Ill. Reg. 16918, effective
 382 September 27, 1993 and October 21, 1993; amended in R93-28 at 18 Ill. Reg. 4242, effective
 383 March 3, 1994; amended in R94-12 at 18 Ill. Reg. 14987, effective September 21, 1994;
 384 amended in R94-15 at 18 Ill. Reg. 16415, effective October 25, 1994; amended in R94-16 at 18
 385 Ill. Reg. 16980, effective November 15, 1994; emergency amendment in R95-10 at 19 Ill. Reg.
 386 3059, effective February 28, 1995, for a maximum of 150 days; amended in R94-21, R94-31 and
 387 R94-32 at 19 Ill. Reg. 6958, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7385,

388 effective May 22, 1995; amended in R96-2 at 20 Ill. Reg. 3848, effective February 15, 1996;
389 amended in R96-13 at 20 Ill. Reg. 14462, effective October 28, 1996; amended in R97-24 at 21
390 Ill. Reg. 7721, effective June 9, 1997; amended in R97-31 at 22 Ill. Reg. 3517, effective
391 February 2, 1998; amended in R04-12/20 at 30 Ill. Reg. 9799, effective May 15, 2006; amended
392 in R06-21 at 31 Ill. Reg. 7110, effective April 30, 2007; amended in R10-10 at 34 Ill. Reg. 5392,
393 effective March 23, 2010; amended in R10-8 at 34 Ill. Reg. 9253, effective June 25, 2010;
394 amended in R10-20 at 34 Ill. Reg. 14326, effective September 14, 2010; amended in R10-8(A) at
395 35 Ill. Reg. 496, effective December 21, 2010; amended in R11-23 at 35 Ill. Reg. 13676,
396 effective July 27, 2011; amended in R11-23(A) at 35 Ill. Reg. 18830, effective October 25, 2011;
397 amended in R12-24 at 37 Ill. Reg. 1722, effective January 28, 2013; amended in R13-18 at 38 Ill.
398 Reg. 1061, effective December 23, 2013; amended in R21-18 at 45 Ill. Reg. _____, effective
399 _____.

401 SUBPART A: GENERAL PROVISIONS

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403 **Section 219.105 Test Methods and Procedures**

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405 a) Coatings, Inks and Fountain Solutions

406 The following test methods and procedures ~~must~~ shall be used to determine
407 compliance of as applied coatings, inks, and fountain solutions with the
408 limitations set forth in this Part.

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

421
422 A) ASTM D 3925-81 (1985) standard practice for sampling liquid
423 paints and related pigment coating. This practice is incorporated
424 by reference in Section 219.112 ~~of this Part~~.

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426 B) ASTM E 300-86 standard practice for sampling industrial
427 chemicals. This practice is incorporated by reference in Section
428 219.112 ~~of this Part~~.

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

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- (a)(2) ~~must be~~ used to determine the composition of coatings, inks, or fountain solutions as applied.
- A) Method 24 of 40 CFR 60, appendix A, incorporated by reference in Section 219.112 ~~of this Part~~, must be used to determine the VOM content and density of coatings. If it is demonstrated to the satisfaction of the Agency and the USEPA that plant coating formulation data are equivalent to Method 24 results, formulation data may be used. In the event of any inconsistency between a Method 24 test and a facility's formulation data, the Method 24 test will govern.
 - B) Method 24A of 40 CFR 60, appendix A, incorporated by reference in Section 219.112, must be used to determine the VOM content and density of rotogravure printing inks and related coatings. If it is demonstrated to the satisfaction of the Agency and USEPA that the plant coating formulation data are equivalent to Method 24A results, formulation data may be used. In the event of any inconsistency between a Method 24A test and formulation data, the Method 24A test will govern.
 - C) The following ASTM methods are the analytical procedures for determining VOM:
 - i) ASTM D 1475-85: Standard test method for density of paint, varnish, lacquer and related products. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.
 - ii) ASTM D 2369-87: Standard test method for volatile content of a coating. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.
 - iii) ASTM D 3792-86: Standard test method for water content of water-reducible paints by direct injection into a gas chromatograph. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.
 - iv) ASTM D 4017-81 (1987): Standard test method for water content in paints and paint materials by the Karl Fischer method. This test method is incorporated by reference in Section 219.112 ~~of this Part~~.

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- v) ASTM D 4457-85: Standard test method for determination of dichloromethane and 1,1,1, trichloroethane in paints and coatings by direct injection into a gas chromatograph. (The procedure delineated above can be used to develop protocols for any compounds specifically exempted from the definition of VOM.) This test method is incorporated by reference in Section 219.112 ~~of this Part.~~
 - vi) ASTM D 2697-86: Standard test method for volume non-volatile matter in clear or pigmented coatings. This test method is incorporated by reference in Section 219.112 ~~of this Part.~~
 - vii) ASTM D 3980-87: Standard practice for interlaboratory testing of paint and related materials. This practice is incorporated by reference in Section 219.112 ~~of this Part.~~
 - viii) ASTM E 180-85: Standard practice for determining the precision of ASTM methods for analysis of and testing of industrial chemicals. This practice is incorporated by reference in Section 219.112 ~~of this Part.~~
 - ix) ASTM D 2372-85: Standard method of separation of vehicle from solvent-reducible paints. This method is incorporated by reference in Section 219.112 ~~of this Part.~~
- D) Use of an adaptation to any of the analytical methods specified in subsections (a)(2)(A), (B), and (C) ~~of this Section~~ may not be used unless approved by the Agency and USEPA. An owner or operator must submit sufficient documentation for the Agency and USEPA to find that the analytical methods specified in subsections (a)(2)(A), (B), and (C) ~~of this Section~~ will yield inaccurate results and that the proposed adaptation is appropriate.
- 3) Calculations: Calculations for determining the VOM content, water content and the content of any compounds which are specifically exempted from the definition of VOM of coatings, inks and fountain solutions as applied must shall follow the guidance provided in the following documents:
- A) "A Guide for Surface Coating Calculation", EPA-340/1-86-016, incorporated by reference in Section 219.112 ~~of this Part.~~

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- B) "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink and Other Coatings" (revised June 1986), EPA-450/3-84-019, incorporated by reference in Section 219.112-~~of this Part~~.
 - C) "A Guide for Graphic Arts Calculations", August 1988, EPA-340/1-88-003, incorporated by reference in Section 219.112-~~of this Part~~.
- b) Automobile or Light-Duty Truck Test Protocol
- 1) The protocol for testing, including determining the transfer efficiency of coating applicators, at primer surfacer operations and topcoat operations at an automobile or light-duty truck assembly source ~~must~~shall follow the procedures in the following:
 - A) Prior to May 1, 2012: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations" ("topcoat protocol"), December 1988, EPA-450/3-88-018, incorporated by reference in Section 219.112-~~of this Part~~.
 - B) On and after May 1, 2012: "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations" (topcoat protocol), September 2008, EPA-453/R-08-002, incorporated by reference in Section 219.112-~~of this Part~~.
 - 2) Prior to testing pursuant to the applicable topcoat protocol, the owner or operator of a coating operation subject to the topcoat or primer surfacer limit in Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(E) ~~must~~shall submit a detailed testing proposal specifying the method by which testing will be conducted and how compliance will be demonstrated consistent with the applicable topcoat protocol. The proposal ~~must~~shall include, at a minimum, a comprehensive plan (including a rationale) for determining the transfer efficiency at each booth through the use of in-plant or pilot testing, the selection of coatings to be tested (for the purpose of determining transfer efficiency) including the rationale for coating groupings, the method for determining the analytic VOM content of as applied coatings and the formulation solvent content of as applied coatings, and a description of the records of coating VOM content as applied and coating's usage that will be kept to demonstrate compliance. Upon approval of the proposal by the Agency and USEPA,

the compliance demonstration for a coating line may proceed.

c) Capture System Efficiency Test Protocols

1) Applicability

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

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

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

i) The source owner or operator ~~must shall~~ obtain data each operating day for the solvent usage and solvent recovery to permit the determination of the solvent recovery efficiency of the system each operating day using a 7-day rolling period. The recovery efficiency for each operating day is computed as the ratio of the total recovered solvent for that day and the most recent prior 6 operating days to the total solvent usage for the same 7-day period used for the recovered solvent, rather than a 30-day weighted average as given in 40 CFR 60.433 incorporated by reference in Section 219.112 ~~of this Part~~. This ratio ~~must shall~~ be expressed as a percentage. The ratio ~~must shall~~ be

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computed within 72 hours following each 7-day period. A source that believes that the 7-day rolling period is not appropriate may use an alternative multi-day rolling period not to exceed 30 days, with the approval of the Agency and USEPA. In addition, the criteria in subsection (c)(1)(B)(ii) or (c)(1)(B)(iii) must be met.

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

2) Capture Efficiency Protocols

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

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

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

where:

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CE = capture efficiency, decimal fraction;

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

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

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

653

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

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

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where:

CE = capture efficiency, decimal fraction;

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

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

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

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- C) Gas/gas method using the building or room (building or room enclosure), in which the affected coating line, printing line or other emission unit is located, as the enclosure, as determined by Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112-~~of this Part~~, and in which "F_B" and "G" are measured while operating only the affected line or emission unit. All fans and blowers in the building or room must be operated as

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they would under normal production. The capture efficiency equation to be used for this protocol is:

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

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where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

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where:

CE = capture efficiency, decimal fraction;

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

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

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Method 204A or 204F contained in appendix M of 40 CFR 51,

705 incorporated by reference in Section 219.112 ~~of this Part~~, is used to
706 obtain L. Method 204E in appendix M of 40 CFR 51, incorporated
707 by reference in Section 219.112 ~~of this Part~~, is used to obtain F_B.
708

709 E) Mass balance using Data Quality Objective (DQO) or Lower
710 Confidence Limit (LCL) protocol. For a liquid/gas input where an
711 owner or operator is using the DQO/LCL protocol and not using an
712 enclosure as described in Method 204 of appendix M of 40 CFR
713 51, incorporated by reference in Section 219.112 ~~of this Part~~, the
714 VOM content of the liquid input (L) must be determined using
715 Method 204A or 204F in appendix M of 40 CFR 51, incorporated
716 by reference in Section 219.112 ~~of this Part~~. The VOM content of
717 the captured gas stream (G) to the control device must be
718 determined using Method 204B or 204C in appendix M of 40 CFR
719 51, incorporated by reference in Section 219.112 ~~of this Part~~. The
720 results of capture efficiency calculations (G/L) must satisfy the
721 DQO or LCL statistical analysis methodology as described in
722 Section 3 of USEPA's "Guidelines for Determining Capture
723 Efficiency", incorporated by reference at Section 219.112 of this
724 Part. Where capture efficiency testing is done to determine
725 emission reductions for the purpose of establishing emission
726 credits for offsets, shutdowns, and trading, the LCL protocol
727 cannot be used for these applications. In enforcement cases, the
728 LCL protocol cannot confirm non-compliance; capture efficiency
729 must be determined using a protocol under subsection (c)(2)(A),
730 (B), (C) or (D) ~~of this Section~~, the DQO protocol of this subsection
731 (c)(2)(E), or an alternative protocol pursuant to Section 219.108(b)
732 ~~of this Part~~.
733

734 BOARD NOTE: Where LCL was used in testing emission units
735 that are the subject of later requests for establishing emission
736 credits for offsets, shutdowns, and trading, prior LCL results may
737 not be relied upon to determine the appropriate amount of credits.
738 Instead, to establish the appropriate amount of credits, additional
739 testing may be required that would satisfy the protocol of Section
740 219.105(c)(2)(A), (B), (C) or (D), the DQO protocol of Section
741 219.105(c)(2)(E), or an alternative protocol pursuant to Section
742 219.108(b) ~~of this Part~~.
743

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

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- A) Multiple line testing must meet the criteria of Section 4 of USEPA's "Guidelines for Determining Capture Efficiency", incorporated by reference at Section 219.112 ~~of this Part~~;
 - B) The most stringent capture efficiency required for any individual line or unit must be met by the aggregate of lines or units; and
 - C) Testing of all the lines of emission units must be performed with the same capture efficiency test protocol.
- 4) Recordkeeping and Reporting
- A) All owners or operators affected by this subsection must maintain a copy of the capture efficiency protocol submitted to the Agency and the USEPA on file. All results of the appropriate test methods and capture efficiency protocols must be reported to the Agency within 60 days after the test date. A copy of the results must be kept on file with the source for a period of 3 years.
 - B) If any changes are made to capture or control equipment, then the source is required to notify the Agency and the USEPA of these changes and a new test may be required by the Agency or the USEPA.
 - C) The source must notify the Agency 30 days prior to performing any capture efficiency or control test. At that time, the source must notify the Agency which capture efficiency protocol and control device test methods will be used. Notification of the actual date and expected time of testing must be submitted a minimum of 5 working days prior to the actual date of the test. The Agency may at its discretion accept notification with shorter advance notice provided that such arrangements do not interfere with the Agency's ability to review the protocol and/or observe testing.
 - D) Sources utilizing a PTE must demonstrate that this enclosure meets the requirement given in Method 204 in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, for a PTE during any testing of their control device.
 - E) Sources utilizing a TTE must demonstrate that their TTE meets the requirements given in Method 204 in appendix M or 40 CFR 51, incorporated by reference in Section 219.112 ~~of this Part~~, for a

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TTE during any testing of their control device. The source must also provide documentation that the quality assurance criteria for a TTE have been achieved.

- F) Any source utilizing the DQO or LCL protocol must submit the following information to the Agency with each test report:
 - i) A copy of all test methods, Quality Assurance/Quality Control procedures, and calibration procedures to be used from those described in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 of this Part;
 - ii) A table with information on each sample taken, including the sample identification and the VOM content of the sample;
 - iii) The quantity of material used for each test run;
 - iv) The quantity of captured VOM for each test run;
 - v) The capture efficiency calculations and results for each test run;
 - vi) The DQO and/or LCL calculations and results; and
 - vii) The Quality Assurance/Quality Control results, including how often the instruments were calibrated, the calibration results, and the calibration gases used.

d) Control Device Efficiency Testing and Monitoring

- 1) The control device efficiency ~~must~~ shall be determined by simultaneously measuring the inlet and outlet gas phase VOM concentrations and gas volumetric flow rates in accordance with the gas phase test methods specified in subsection (f) of this Section.
- 2) An owner or operator:
 - A) That uses an afterburner or carbon adsorber to comply with any Section of this Part ~~must~~ shall use Agency and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use except as provided in subsection

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(d)(3) ~~of this Section.~~ The continuous monitoring equipment must monitor the following parameters:

- i) For each afterburner which does not have a catalyst bed, the combustion chamber temperature of each afterburner.
 - ii) For each afterburner which has a catalyst bed, commonly known as a catalytic afterburner, the temperature rise across each catalytic afterburner bed or VOM concentration of exhaust.
 - iii) For each carbon adsorber, the VOM concentration of each carbon adsorption bed exhaust or the exhaust of the bed next in sequence to be desorbed.
- B) Must install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device, such as a strip chart, recorder or computer, having an accuracy of ± 1 percent of the temperature measured, expressed in degrees Celsius or $\pm 0.5^\circ$ C, whichever is greater.
- C) Of an automobile or light-duty truck primer surfacer operation or topcoat operation subject to subsection (d)(2)(A) ~~must~~ shall keep a separate record of the following data for the control devices, unless alternative provisions are ~~stated~~ set forth in a permit pursuant to Title V of the Clean Air Act:
- i) For thermal afterburners for which combustion chamber temperature is monitored, all 3-hour periods of operation in which the average combustion temperature was more than 28° C (50° F) below the average combustion temperature measured during the most recent performance test that demonstrated that the operation was in compliance.
 - ii) For catalytic afterburners for which temperature rise is monitored, all 3-hour periods of operation in which the average gas temperature before the catalyst bed is more than 28° C (50° F) below the average gas temperature immediately before the catalyst bed measured during the most recent performance test that demonstrated that the operation was in compliance.

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

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

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

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

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

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

e) Overall Efficiency

1) The overall efficiency of the emission control system ~~must~~ shall be determined as the product of the capture system efficiency and the control device efficiency or by the liquid/liquid test protocol as specified in 40 CFR 60.433, incorporated by reference in Section 219.112 ~~of this Part~~,

920 (and revised by subsection (c)(1)(B) ~~of this Section~~) for each solvent
 921 recovery system. In those cases in which the overall efficiency is being
 922 determined for an entire line, the capture efficiency used to calculate the
 923 product of the capture and control efficiency is the total capture efficiency
 924 over the entire line.

925
 926 2) For coating lines which are both chosen by the owner or operator to
 927 comply with Section 219.207(a), (d), (e), (f), (g), (l), ~~or (m), or (n)~~ of this
 928 Part by the alternative in Section 219.207(b)(2) ~~of this Part~~ and meet the
 929 criteria allowing them to comply with Section 219.207 instead of Section
 930 219.204 ~~of this Part~~, the overall efficiency of the capture system and
 931 control device, as determined by the test methods and procedures specified
 932 in subsections (c), (d) and (e)(1) ~~of this Section~~, ~~must~~ shall be no less than
 933 the equivalent overall efficiency that must ~~which shall~~ be calculated by the
 934 following equation:
 935

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

936
 937 where:
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 939

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

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

VOM_l = The VOM emission limit specified in Sections 219.204 or 219.205 of this Part in units of kg VOM/1 (lb VOM/gal) of coating solids as applied.

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 941 f) Volatile Organic Material Gas Phase Source Test Methods
 942 The methods in 40 CFR 60, appendix A, incorporated by reference in Section
 943 219.112 of this Part delineated in this subsection (f) ~~must~~ shall be used to
 944 determine control device efficiencies.

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 946 1) 40 CFR 60, appendix A, Method 18, 25 or 25A, incorporated by reference

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

- A) When the method is to be used to determine the efficiency of a carbon adsorption system with a common exhaust stack for all the individual adsorber vessels, the test mustshall consist of three separate runs, each coinciding with one or more complete sequences through the adsorption cycles of all the individual adsorber vessels.
 - B) When the method is to be used to determine the efficiency of a carbon adsorption system with individual exhaust stacks for each adsorber vessel, each adsorber vessel mustshall be tested individually. The test for each adsorber vessel mustshall consist of three separate runs. Each run mustshall coincide with one or more complete adsorption cycles.
- 2) 40 CFR 60, appendix A, Method 1 or 1A, incorporated by reference in Section 219.112-~~of this Part~~, mustshall be used for sample and velocity traverses.
 - 3) 40 CFR 60, appendix A, Method 2, 2A, 2C or 2D, incorporated by reference in Section 219.112-~~of this Part~~, mustshall be used for velocity and volumetric flow rates.
 - 4) 40 CFR 60, appendix A, Method 3, incorporated by reference in Section 219.112-~~of this Part~~, mustshall be used for gas analysis.
 - 5) 40 CFR 60, appendix A, Method 4, incorporated by reference in Section 219.112-~~of this Part~~, mustshall be used for stack gas moisture.
 - 6) 40 CFR 60, appendix A, Methods 2, 2A, 2C, 2D, 3 and 4, incorporated by reference in Section 219.112-~~of this Part~~, mustshall be performed, as applicable, at least twice during each test run.
 - 7) Use of an adaptation to any of the test methods specified in subsections (f)(1), (2), (3), (4), (5) and (6)-~~of this Section~~ may not be used unless

990 approved by the Agency and the USEPA on a case by case basis. An
 991 owner or operator must submit sufficient documentation for the Agency
 992 and the USEPA to find that the test methods specified in subsections
 993 (f)(1), (2), (3), (4), (5) and (6) ~~of this Section~~ will yield inaccurate results
 994 and that the proposed adaptation is appropriate.
 995

996 g) Leak Detection Methods for Volatile Organic Material
 997 Owners or operators required by this Part to carry out a leak detection monitoring
 998 program ~~must~~ shall comply with the following requirements:
 999

1000 1) Leak Detection Monitoring

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 1002 A) Monitoring ~~must~~ shall comply with 40 CFR 60, appendix A,
 1003 Method 21, incorporated by reference in Section 219.112 ~~of this~~
 1004 Part.

1005
 1006 B) The detection instrument ~~must~~ shall meet the performance criteria
 1007 of Method 21.

1008
 1009 C) The instrument ~~must~~ shall be calibrated before use on each day of
 1010 its use by the methods specified in Method 21.

1011
 1012 D) Calibration gases ~~must~~ shall be:

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 1014 i) Zero air (less than 10 ppm of hydrocarbon in air); and

1015
 1016 ii) A mixture of methane or n-hexane and air at a
 1017 concentration of approximately, but no less than, 10,000
 1018 ppm methane or n-hexane.

1019
 1020 E) The instrument probe ~~must~~ shall be traversed around all potential
 1021 leak interfaces as close to the interface as possible as described in
 1022 Method 21.

1023
 1024 2) When equipment is tested for compliance with no detectable emissions as
 1025 required, the test ~~must~~ shall comply with the following requirements:

1026
 1027 A) The requirements of subsections (g)(1)(A) through (g)(1)(E)
 1028 ~~of this Section~~ shall apply.

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 1030 B) The background level ~~must~~ shall be determined as ~~stated~~ set forth in
 1031 Method 21.
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- 3) Leak detection tests ~~must~~ shall be performed consistent with:
 - A) "APTI Course SI 417 controlling Volatile Organic Compound Emissions from Leaking Process Equipment", EPA-450/2-82-015, incorporated by reference in Section 219.112 ~~of this Part~~.
 - B) "Portable Instrument User's Manual for Monitoring VOM Sources", EPA-340/1-86-015, incorporated by reference in Section 219.112 ~~of this Part~~.
 - C) "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks of VOM and VHAP", EPA-450/3-88-010, incorporated by reference in Section 219.112 ~~of this Part~~.
 - D) "Petroleum Refinery Enforcement Manual", EPA-340/1-80-008, incorporated by reference in Section 219.112 ~~of this Part~~.
- h) Bulk Gasoline Delivery System Test Protocol
 - 1) The method for determining the emissions of gasoline from a vapor recovery system are delineated in 40 CFR 60, subpart XX, section 60.503, incorporated by reference in Section 219.112 ~~of this Part~~.
 - 2) Other tests ~~must~~ shall be performed consistent with:
 - A) "Inspection Manual for Control of Volatile Organic Emissions from Gasoline Marketing Operations: Appendix D", EPA-340/1-80-012, incorporated by reference in Section 219.112 ~~of this Part~~.
 - B) "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals: Appendix A", EPA-450/2-77-026, incorporated by reference in Section 219.112 ~~of this Part~~.
- i) Notwithstanding other requirements of this Part, upon request of the Agency where it is necessary to demonstrate compliance, an owner or operator of an emission unit which is subject to this Part ~~must~~ shall, at his own expense, conduct tests in accordance with the applicable test methods and procedures specific in this Part. Nothing in this Section ~~limits~~ shall limit the authority of the USEPA ~~underpursuant to~~ the Clean Air Act, as amended, to require testing.
- j) Cleaning Solvents Subject to Section 219.219(g)

- 1075 1) For aqueous and semiaqueous cleaning solvents, manufacturers' supplied
1076 data must be used to determine the water content.
1077
1078 2) For hand-wipe cleaning solvents required in Section 219.219(g)(2),
1079 manufacturers' supplied data or standard engineering reference texts or
1080 other equivalent methods must be used to determine the vapor pressure or
1081 VOM composite vapor pressure for blended cleaning solvents.
1082

1083 (Source: Amended at 45 Ill. Reg. _____, effective _____)
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1085 **Section 219.106 Compliance Dates**
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- 1087 a) Except as provided in subsection (b), (c), (d), ~~or (e)~~, or (f), compliance with the
1088 requirements of this Part is required by May 15, 1992, consistent with the
1089 provisions of Section 219.103 ~~of this Part~~.
1090
1091 b) As this Part is amended from time to time, compliance dates included in the
1092 specific Subparts supersede the requirements of this Section, except as limited by
1093 Section 219.101(b) ~~of this Subpart~~.
1094
1095 c) Any owner or operator of a source subject to the requirements of Section
1096 219.204(c)(2), 219.204(g)(2), or 219.204(h)(2) ~~must of this Part shall~~ comply with
1097 the applicable requirements in the applicable subsections, as well as all applicable
1098 requirements in Sections 219.205 through 219.214 and 219.218, by May 1, 2012.
1099
1100 d) Any owner or operator of a source subject to the requirements of Section
1101 219.204(o) ~~must of this Part shall~~ comply with the requirements in Section
1102 219.204(o), as well as all applicable requirements in Sections 219.205 through
1103 219.211, 219.214, and 219.217 by August 1, 2010.
1104
1105 e) Any owner or operator of a source subject to the requirements of Section
1106 219.204(a)(2) or 219.204(q) ~~must of this Part shall~~ comply with the applicable
1107 requirements in those Sections, as well as all applicable requirements in Sections
1108 219.205 through 219.214 and 219.219, by May 1, 2011.
1109
1110 f) Any owner or operator of a source subject to the requirements of Section
1111 219.204(r) must comply with the requirements in Section 219.204(r), as well as
1112 all applicable requirements in Sections 219.205, 219.207, 219.208, 219.211, and
1113 219.219 by January 1, 2021.
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1115 (Source: Amended at 45 Ill. Reg. _____, effective _____)
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1117 **Section 219.110 Vapor Pressure of Organic Material or Solvent**

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- a) If the organic material or solvent consists of only a single compound, the vapor pressure must be determined by ASTM Method D2879-86 (incorporated by reference in Section 219.112 of this Part) or the vapor pressure may be obtained from a publication such as: Boublik, T., V. Fried and E. Hala, "The Vapor Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973); Perry's Chemical Engineer's Handbook, McGraw-Hill Book Company (1984); CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-87); and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985).
- b) Except as provided in subsection (d), if the organic material or solvent is in a mixture made up of both organic material compounds and compounds which are not organic material, the vapor pressure must be determined by the following equation:

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

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where:

- P_{om} = Total vapor pressure of the portion of the mixture which is composed of organic material;
- n = Number of organic material components in the mixture;
- i = Subscript denoting an individual component;
- P_i = Vapor pressure of an organic material component determined in accordance with subsection (a) ~~of this Section~~;
- X_i = Mole fraction of the organic material component of the total organic mixture.

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- c) If the organic material or solvent is in a mixture made up only organic material compounds, the vapor pressure must be determined by ASTM Method D2879-86 (incorporated by reference in Section 219.112 ~~of this Part~~) or by the above equation.
- d) For hand-wipe cleaning solvents used at aerospace facilities subject to Section 219.219(g)(2), the composite vapor pressure of a cleaning solvent consisting of

1146 multiple components must be determined by the following equation:

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

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where:

- PP_c \equiv Composite vapor pressure of the cleaning solvent in mmHg at 20°C;
- n \equiv Number of components in the cleaning solvent;
- i \equiv Subscript denoting an individual VOM-containing component;
- j \equiv Subscript denoting an individual non-VOM component;
- W_i \equiv Weight of a VOM-containing component in grams;
- W_j \equiv Weight of a non-VOM component in grams;
- W_w \equiv Weight of water in grams;
- MW_i \equiv Molecular weight a VOM-containing component in grams per gram-mole;
- MW_j \equiv Molecular weight of a non-VOM component in grams per gram-mole
- MW_w \equiv Molecular weight of water in grams per gram-mole;
- VP_i \equiv Vapor pressure of a VOM-containing component in mmHg at 20°C.

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

Section 219.112 Incorporations by Reference

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

- 1160 a) American Society for Testing and Materials, 100 Barr Harbor Drive, West
1161 Conshohocken PA 19428-9555
1162
1163 1) ASTM D 2879-86
1164
1165 2) ASTM D 323-08
1166
1167 3) ASTM D 86-82
1168
1169 4) ASTM D 369-69 (1971)
1170
1171 5) ASTM D 396-69
1172
1173 6) ASTM D 2880-71
1174
1175 7) ASTM D 975-68
1176
1177 8) ASTM D 3925-81 (1985)
1178
1179 9) ASTM E 300-86
1180
1181 10) ASTM D 1475-85
1182
1183 11) ASTM D 2369-87
1184
1185 12) ASTM D 3792-86
1186
1187 13) ASTM D 4017-81 (1987)
1188
1189 14) ASTM D 4457-85
1190
1191 15) ASTM D 2697-86
1192
1193 16) ASTM D 3980-87
1194
1195 17) ASTM E 180-85
1196
1197 18) ASTM D 2372-85
1198
1199 19) ASTM D 97-66
1200
1201 20) ASTM E 168-87 (1977)
1202

- 1203 21) ASTM E 169-87
 1204
 1205 22) ASTM E 260-91
 1206
 1207 23) ASTM D 2504-83
 1208
 1209 24) ASTM D 2382-83
 1210
 1211 b) Standard Industrial Classification Manual, published by Executive Office of the
 1212 President, Office of Management and Budget, Washington, D.C., 1987.
 1213
 1214 c) American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating
 1215 Roof Tanks", Second ed., February 1980.
 1216
 1217 d) 40 CFR 60 (July 1, 1991).
 1218
 1219 e) 40 CFR 61 (July 1, 1991).
 1220
 1221 f) 40 CFR 50 (July 1, 1991).
 1222
 1223 g) 40 CFR 51 (July 1, 1991) and 40 CFR 51, appendix M, Methods 204-204F (July
 1224 1, 1999).
 1225
 1226 h) 40 CFR 52 (July 1, 1991).
 1227
 1228 i) "A Guide for Surface Coating Calculation", July 1986, United States
 1229 Environmental Protection Agency, Washington, D.C., EPA-340/1-86-016.
 1230
 1231 j) "Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by
 1232 Paint, Ink and Other Coating" (revised June 1986), United States Environmental
 1233 Protection Agency, Washington D.C., EPA-450/3-84-019.
 1234
 1235 k) "A Guide for Graphic Arts Calculations", August 1988, United States
 1236 Environmental Protection Agency, Washington D.C., EPA-340/1-88-003.
 1237
 1238 l) "Protocol for Determining the Daily Volatile Organic Compound Emission Rate
 1239 of Automobile and Light-Duty Truck Topcoat Operations", December 1988,
 1240 United States Environmental Protection Agency, Washington D.C., EPA-450/3-
 1241 88-018.
 1242
 1243 m) "Control of Volatile Organic Emissions from Manufacturing of Synthesized
 1244 Pharmaceutical Products", December 1978, United States Environmental
 1245 Protection Agency, Washington, D.C., EPA-450/2-78-029.

- 1246
 1247 n) "Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and
 1248 Vapor Collection Systems", December 1978, Appendix B, United States
 1249 Environmental Protection Agency, Washington, D.C., EPA-450/2-78-051.
 1250
 1251 o) "Control of Volatile Organic Compound Emissions from Large Petroleum Dry
 1252 Cleaners", September 1982, United States Environmental Protection Agency,
 1253 Washington, D.C., EPA-450/3-82-009.
 1254
 1255 p) "APTI Course SI417 Controlling Volatile Organic Compound Emissions from
 1256 Leaking Process Equipment", 1982, United States Environmental Protection
 1257 Agency, Washington, D.C., EPA-450/2-82-015.
 1258
 1259 q) "Portable Instrument User's Manual for Monitoring VOM Sources", June 1986,
 1260 United States Environmental Protection Agency, Washington, D.C., EPA-340/1-
 1261 86-015.
 1262
 1263 r) "Protocols for Generating Unit-Specific Emission Estimates for Equipment Leaks
 1264 of VOM and VHAP", October 1988, United States Environmental Protection
 1265 Agency, Washington, D.C., EPA-450/3-88-010.
 1266
 1267 s) "Petroleum Refinery Enforcement Manual", March 1980, United States
 1268 Environmental Protection Agency, Washington, D.C., EPA-340/1-80-008.
 1269
 1270 t) "Inspection Manual for Control of Volatile Organic Emissions from Gasoline
 1271 Marketing Operations: Appendix D", 1980, United States Environmental
 1272 Protection Agency, Washington, D.C., EPA-340/1-80-012.
 1273
 1274 u) "Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals:
 1275 Appendix A", December 1977, United States Environmental Protection Agency,
 1276 Washington, D.C., EPA-450/2-77-026.
 1277
 1278 v) California Air Resources Board, Compliance Division. Compliance Assistance
 1279 Program: Gasoline Marketing and Distribution: Gasoline Facilities Phase I & II
 1280 (October 1988, rev. November 1993) (CARB Manual).
 1281
 1282 w) "Guidelines for Determining Capture Efficiency", January 1995, Office of Air
 1283 Quality Planning and Standards, United States Environmental Protection Agency,
 1284 Research Triangle Park NC.
 1285
 1286 x) Memorandum "Revised Capture Efficiency Guidance for Control of Volatile
 1287 Organic Compound Emissions", February 1995, John S. Seitz, Director, Office of

1288 Air Quality Planning and Standards, United States Environmental Protection
1289 Agency.

1290
1291 y) "Protocol for Determining the Daily Volatile Organic Compound Emission Rate
1292 of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations",
1293 September 2008, United States Environmental Protection Agency, Washington,
1294 D.C., EPA-453/R-08-002.

1295
1296 z) 40 CFR 63 subpart P, appendix A (2008).

1297
1298 aa) 46 CFR subchapter Q (2007).

1299
1300 bb) 46 CFR subchapter T (2008).

1301
1302 cc) 40 CFR 82.4 (2020).

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1304 (Source: Amended at 45 Ill. Reg. _____, effective _____)

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1306 SUBPART E: SOLVENT CLEANING

1307
1308 **Section 219.187 Other Industrial Solvent Cleaning Operations**

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1310 a) Applicability. On and after January 1, 2012:

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1312 1) Except as provided in subsection (a)(2) ~~of this Section~~, the requirements of
1313 this Section ~~shall~~ apply to all cleaning operations that use organic
1314 materials at sources that emit a total of 226.8 kg per calendar month (500
1315 lbs per calendar month) or more of VOM, in the absence of air pollution
1316 control equipment, from cleaning operations at the source other than
1317 cleaning operations identified in subsection (a)(2) ~~of this Section~~. For
1318 purposes of this Section, "cleaning operation" means the process of
1319 cleaning products, product components, tools, equipment, or general work
1320 areas during production, repair, maintenance or servicing, including but
1321 not limited to spray gun cleaning, spray booth cleaning, large and small
1322 manufactured components cleaning, parts cleaning, equipment cleaning,
1323 line cleaning, floor cleaning, and tank cleaning, at sources with emission
1324 units;

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1326 2) Notwithstanding subsection (a)(1) ~~of this Section~~:

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1328 A) The following cleaning operations are ~~shall~~ be exempt from the
1329 requirements of subsections (b), (c), (d), (e), (f), and (g) ~~of this~~
1330 Section:

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- i) Cleaning operations subject to the limitations in Sections 219.182, 219.183, or 219.184;
 - ii) Janitorial cleaning;
 - iii) Stripping of cured coatings, inks, or adhesives;
 - iv) Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;
- B) Cleaning operations for emission units within the following categories ~~are shall be~~ exempt from the requirements of subsections (b), (c), (d), (e), (f), and (g) ~~of this Section~~:
- i) Flexible package printing;
 - ii) Lithographic printing;
 - iii) Letterpress printing;
 - iv) Flat wood paneling coating;
 - v) Large appliance coating;
 - vi) Metal furniture coating;
 - vii) Paper, film, and foil coating;
 - viii) Wood furniture coating;
 - ix) Plastic parts coating;
 - x) Miscellaneous metal parts coating;
 - xi) Fiberglass boat manufacturing;
 - xii) Miscellaneous industrial adhesives; ~~and~~
 - xiii) Auto and light-duty truck assembly coating; and

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xiv) Aerospace facilities:

- C) The following cleaning operations ~~are~~ shall be exempt from the requirements of subsections (b), (c), (f), and (g) ~~of this Section:~~
- i) Cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics;
 - ii) Cleaning conducted as part of performance laboratory tests on coatings, adhesives, or inks; research and development operations; or laboratory tests in quality assurance laboratories;
 - iii) Cleaning of paper-based gaskets and clutch assemblies where rubber is bonded to metal by means of an adhesive;
 - iv) Cleaning of cotton swabs to remove cottonseed oil before cleaning of high-precision optics;
 - v) Cleaning of medical device and pharmaceutical manufacturing operations if the facility uses no more than 5.7 liters (1.5 gallons) per day of solvents for such cleaning;
 - vi) Cleaning of adhesive application equipment used for thin metal laminating;
 - vii) Cleaning of electronic or electrical cables;
 - viii) Touch-up cleaning performed on printed circuit boards where surface mounted devices have already been attached;
 - ix) Cleaning of coating and adhesive application processes utilized to manufacture transdermal drug delivery products using no more than three gallons per day of ethyl acetate;
 - x) Cleaning of application equipment used to apply coatings on satellites and radiation effect coatings;
 - xi) Cleaning of application equipment used to apply solvent-borne fluoropolymer coatings;

- 1416 xii) Cleaning of ultraviolet or electron beam adhesive
1417 application;
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- 1419 xiii) Cleaning of sterilization indicating ink application
1420 equipment if the facility uses no more than 5.7 liters (1.5
1421 gallons) per day of solvents for such cleaning;
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- 1423 xiv) Cleaning of metering rollers, dampening rollers, and
1424 printing plates;
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- 1426 xv) Cleaning of numismatic dies; ~~and~~
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- 1428 xvi) Cleaning operations associated with digital printing;
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- 1430 xvii) Cleaning with aerosol products if the facility uses no more
1431 than 4.7 liters (1.25 gallons) per day of ~~those~~ products;
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- 1433 xviii) Cleaning of plastic-based or vinyl-based substrates for use
1434 in the screen printing process when using UV curable ink
1435 and coating systems;
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- 1437 xix) Cleaning conducted as part of performance tests on
1438 coatings, adhesives, or inks that are in research and
1439 development and that are not yet commercially used for the
1440 applications for which they are being tested. This
1441 exemption is limited to the use of up to a total of 90.9 liters
1442 (24 gallons) per calendar month and 416.3 liters (110
1443 gallons) of cleaning solvent per calendar year for ~~that~~
1444 cleaning.
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1446 b) Material and Control Requirements. ~~An~~ owner or operator of a source subject
1447 to this Section, other than manufacturers of coatings, inks, adhesives, or resins,
1448 ~~must not~~ shall perform any cleaning operation subject to this Section unless the
1449 owner or operator meets the requirements in subsection (b)(1), (b)(2), or (b)(3).
1450 ~~An~~ owner or operator of a source that manufactures coatings, inks, adhesives,
1451 or resins ~~must not~~ shall perform any cleaning operation subject to this Section
1452 unless the owner or operator meets the requirements in at least one of the
1453 following subsections: (b)(1), (b)(2), (b)(3), (b)(4), or (b)(5).

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1455 1) The VOM content of the as-used cleaning solutions does not exceed the
1456 following emissions limitations:

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1458 A) Product cleaning during manufacturing process

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or surface preparation for coating, adhesive, or
ink application:

		kg/l	lb/gal
i)	Electrical apparatus components and electronic components	0.10	0.83
ii)	Medical device and pharmaceutical manufacturing	0.80	6.7

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B) Repair and maintenance cleaning:

		kg/l	lb/gal
i)	Electrical apparatus components and electronic	0.10	0.83
ii)	Medical device and pharmaceutical manufacturing: tools, equipment, and machinery	0.80	6.7
iii)	Medical device and pharmaceutical manufacturing: general work surfaces	0.60	5.0

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C) Cleaning of ink application equipment:

		kg/l	lb/gal
i)	Rotogravure printing that does not print flexible packaging	0.10	0.83
ii)	Screen printing, including screen reclamation activities	0.50	4.2
iii)	Ultraviolet ink and electron beam ink application equipment, except screen printing	0.65	5.4
iv)	Flexographic printing that does not print flexible packaging	0.10	0.83

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kg/l lb/gal

D) Cleaning of equipment used in the manufacture of coatings, inks, adhesives, or resins 0.20 1.67

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E) All other cleaning operations not subject to a specific limitation in subsections (b)(1)(A) through (b)(1)(D) of this Section kg/l lb/gal 0.050 0.42

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

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3) An afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, or for sources that manufacture coatings, inks, adhesives, or resins, an afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 80 percent overall and has a 90 percent efficiency. The owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation in accordance with the applicable capture and control requirements of this subsection (b)(3), the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions;

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4) For sources that manufacture coatings, inks, adhesives, or resins, the owner or operator complies with the following work practices:

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A) Equipment being cleaned is maintained leak-free;

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B) VOM-containing cleaning materials are drained from the cleaned equipment upon completion of cleaning;

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C) VOM-containing cleaning materials, including waste solvent, are not stored or disposed of in such a manner that will cause or allow evaporation into the atmosphere; and

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D) VOM-containing cleaning materials are stored in closed containers;

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- 5) Sources that manufacture coatings, inks, adhesives, or resins may utilize solvents that do not comply with subsection (b)(1) or (b)(2) ~~of this Section~~ provided that all of the following requirements are met:
 - A) No more than 228 l (60 gal) of fresh solvent is used per calendar month. Solvent that is reused or recycled, either onsite or offsite, for further use in equipment cleaning or in the manufacture of coatings, inks, adhesives, or resins, mustshall not be included in this limit;
 - B) Solvents, including cleanup solvents, are collected and stored in closed containers; and
 - C) Records are maintained in accordance with subsection (e)(6).
- c) The owner or operator of a subject source mustshall 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~~ mustshall comply with the following for each subject cleaning operation. ~~These~~ Such requirements are in addition to work practices specifiedset forth in subsections (b)(4) and (b)(5) ~~of this Section~~, as applicable:
 - 1) Cover open containers and properly cover and store applicators used to apply cleaning solvents;
 - 2) Minimize air circulation around the cleaning operation;
 - 3) Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;
 - 4) Utilize equipment practices that minimize emissions;
 - 5) When using cleaning solvent for wipe cleaning, sources that manufacture coatings, inks, adhesives, or resins mustshall:
 - A) Cover open containers used for the storage of spent or fresh organic compounds used for cleanup or coating, ink, adhesive, or resin removal; and

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- B) Cover open containers used for the storage or disposal of cloth or paper impregnated with organic compounds that are used for cleanup or coating, ink, adhesive, or resin removal.
- e) Recordkeeping and Reporting Requirements
 - 1) The owner or operator of a source exempt from the limitations of this Section because of the criteria in subsection (a)(1) ~~must of this Section shall~~ comply with the following:
 - A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:
 - i) A declaration that the source is exempt from the requirements of this Section because of the criteria in subsection (a)(1);
 - ii) Calculations that demonstrate that combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in subsection (a)(2) ~~of this Section~~, never equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment. An emission adjustment factor of 0.50 ~~must shall~~ be used in calculating emissions from used shop towels if the VOM composite vapor pressure of each associated cleaning solution is demonstrated to be less than 10 mmHg at 20°C (68°F) and the used shop towels are kept in closed containers. For cleaning solutions with VOM composite vapor pressure of equal to or greater than 10 mmHg measured at 20°C (68°F) and for shop towels that are not kept in closed containers, no emission adjustment factor ~~must shall~~ be used;
 - B) On and after January 1, 2012, collect and record the following information each month for each cleaning operation, other than cleaning operations identified in subsection (a)(2) ~~of this Section~~:
 - i) The name and identification of each VOM-containing cleaning solution as applied in each cleaning operation;
 - ii) The VOM content of each cleaning solution as applied in each cleaning operation;

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- iii) The weight of VOM per volume and the volume of each as-used cleaning solution; and
 - iv) The total monthly VOM emissions from cleaning operations at the source;
 - C) Notify the Agency of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in subsection (a)(2) of this Section, ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.
- 2) All sources subject to ~~the requirements of this Section~~ must shall:
- A) By January 1, 2012 or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes:
 - i) A declaration that all subject cleaning operations are in compliance with ~~the requirements of this Section~~;
 - ii) Identification of each subject cleaning operation and each VOM-containing cleaning solution used as of the date of certification in such operation;
 - iii) If complying with the emissions control system requirement, what type of emissions control system will be used;
 - iv) Initial documentation that each subject cleaning operation will comply with the applicable limitation, including copies of manufacturer's specifications, test results (if any), formulation data, and calculations;
 - v) Identification of the methods that will be used to demonstrate continuing compliance with the applicable limitations;
 - vi) A description of the practices and procedures that the source will follow to ensure compliance with the

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limitations in subsection (d), and, if applicable, subsection (b)(4); and

vii) A description of each cleaning operation exempt ~~underpursuant to~~ subsection (a)(2), if any, and a listing of the emission units on which the exempt cleaning operation is performed;

B) At least 30 calendar days before changing the method of compliance between subsections (b)(1), (b)(2), (b)(4), or (b)(5) and subsection (b)(3) ~~of this Section~~, notify the Agency in writing of ~~thesueh~~ change. The notification ~~must~~shall include a demonstration of compliance with the newly applicable subsection;

3) All sources complying with this Section ~~underpursuant to the requirements of subsection (b)(1) must of this Section shall~~ collect and record the following information for each cleaning solution used:

A) For each cleaning solution that is prepared at the source with automatic equipment:

i) The name and identification of each cleaning solution;

ii) The VOM content of each cleaning solvent in the cleaning solution;

iii) Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

iv) The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

v) The VOM content of the as-used cleaning solution, with supporting calculations; and

vi) A calibration log for the automatic equipment, detailing periodic checks;

B) For each batch of cleaning solution that is not prepared at the source with automatic equipment:

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- 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 ~~underpursuant to the requirements of subsection (b)(2) must 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~~;

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- 5) All sources complying with this Section ~~underpursuant to the requirements of subsection (b)(3) must of this Section~~ shall comply with the following:
- A) By January 1, 2012, or upon initial start-up of the source, whichever is later, and upon initial start-up of a new emissions control system, include in the certification required by subsection (e)(3) ~~of this Section~~ a declaration that the monitoring equipment required under subsection (f) ~~of this Section~~ has been properly installed and calibrated according to manufacturer's specifications;
 - B) If testing of an emissions control system is conducted ~~underpursuant to subsection (g) of this Section~~, the owner or operator ~~must~~shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and ~~must~~shall submit a certification to the Agency that includes the following:
 - i) A declaration that all tests and calculations necessary to demonstrate compliance with subsection (b)(3) ~~of this Section~~ have been properly performed;
 - ii) A statement whether the subject cleaning operation is or is not in compliance with subsection (b)(3) ~~of this Section~~;
 - iii) The operating parameters of the emissions control system during testing, as monitored in accordance with subsection (f) ~~of this Section~~;
 - C) Collect and record daily the following information for each cleaning operation subject to the requirements of subsection (b)(3) ~~of this Section~~:
 - i) Emissions control system monitoring data in accordance with subsection (f) ~~of this Section~~, as applicable;
 - ii) A log of operating time for the emissions control system, monitoring equipment, and associated cleaning equipment;
 - iii) A maintenance log for the emissions control system and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;

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- D) Maintain records documenting the use of good operating practices consistent with the equipment manufacturer's specifications for the cleaning equipment being used and the emissions control system equipment. At a minimum, these records ~~must~~shall include:
 - i) Records for periodic inspection of the cleaning equipment and emissions control system equipment with date of inspection, individual performing the inspection, and nature of inspection;
 - ii) Records for repair of malfunctions and breakdowns with identification and description of incident, date identified, date repaired, nature of repair, and the amount of VOM released into the atmosphere as a result of the incident;

- 6) All sources complying with this Section ~~underpursuant to the requirements of subsection (b)(5) must of this Section shall~~ collect and record monthly the following information for each cleaning operation subject to ~~the requirements of subsection (b)(5) of this Section:~~
 - A) The name, identification, and volume of each VOM-containing cleaning solution as applied in each cleaning operation;
 - B) The volume of each fresh cleaning solvent used for cleaning coating, ink, adhesive, or resin manufacturing equipment;
 - C) The volume of cleaning solvent recovered for either offsite or onsite reuse or recycling for further use in the cleaning of coating, ink, adhesive, or resin manufacturing equipment;

- 7) The owner or operator of a source with cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii) or (a)(2)(C)(xvii), including sources exempt from the limitations of this Section because of the criteria in subsection (a)(1), ~~must~~shall:
 - A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes a declaration that the source has cleaning operations that fall under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii) or (a)(2)(C)(xvii), and a statement identifying each such cleaning operation and the exclusion applicable to each cleaning operation;

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- B) Collect and record the name, identification, and volume of each cleaning solvent as applied each day in each cleaning operation that falls under one or more of the exclusions-~~set forth~~ in subsection (a)(2)(C)(v), (a)(2)(C)(xiii), or (a)(2)(C)(xvii); and
 - C) Notify the Agency in writing if the amount of cleaning solvent used in the cleaning of medical device and pharmaceutical manufacturing operations or of sterilization indicating ink application equipment at the source ever exceeds 5.7 liters (1.5 gallons) per day, or if the amount of aerosol cleaning products used at the source ever exceeds 4.7 liters (1.25 gallons) per day, within 30 days after the exceedance occurs;
- 8) The owner or operator of a source with cleaning operations that fall under one or more of the exclusions-~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix), including sources exempt from the limitations of this Section because of the criteria in subsection (a)(1), must~~shall~~:
- A) By January 1, 2012, or upon initial start-up of the source, whichever is later, submit a certification to the Agency that includes a declaration that the source has cleaning operations that fall under one or more of the exclusions-~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix), and a statement identifying each such cleaning operation and the exclusion applicable to each cleaning operation;
 - B) Collect and record the name identification, volume, and VOM content of each cleaning solvent as applied each month in each cleaning operation that falls under one or more of the exclusions ~~set forth~~ in subsection (a)(2)(C)(xviii) or (a)(2)(C)(xix);
 - C) For cleaning operations that fall under the exclusion-~~set forth~~ in subsection (a)(2)(C)(xviii), collect and record each month information demonstrating that the exempt cleaning solvent is being used exclusively for the cleaning of plastic-based or vinyl-based substrates for use in the screen printing process when using UV curable ink and coating systems; and
 - D) For cleaning operations that fall under the exclusion-~~set forth~~ in subsection (a)(2)(C)(xix), collect and record each month information demonstrating that the exempt cleaning solvent is being used exclusively for production line performance testing of

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coatings that are in research and development and are not yet commercially used for the applications for which they are being tested;

- 9) All sources subject to the requirements of subsections (b) and (d) ~~must of this Section shall~~ notify the Agency of any violation of subsection (b) or (d) by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation;
- 10) All records required by this subsection (e) ~~must shall be kept retained~~ by the source for at least three years and ~~must shall~~ be made available to the Agency upon request.

f) Monitoring Requirements

- 1) If an afterburner is used to demonstrate compliance, the owner or operator of a source subject to subsection(b)(3) ~~must of this Section shall~~:
 - A) Install, calibrate, operate, and maintain temperature monitoring devices 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 ~~must shall~~ be performed at all times when the emissions control system is operating; and
 - B) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring devices, such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor;
- 2) If a carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to subsection (b)(3) ~~must shall~~ use Agency and USEPA approved continuous monitoring equipment that is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use. The continuous monitoring equipment ~~must shall~~ monitor the VOM concentration of each carbon adsorption bed or the exhaust of the bed next in sequence to be desorbed;
- 3) If an emissions control system other than an afterburner or carbon adsorber is used to demonstrate compliance, the owner or operator of a source subject to subsection (b)(3) ~~must of this Section shall~~ install,

1888 maintain, calibrate, and operate such monitoring equipment as stated~~set~~
 1889 ~~forth~~ in the owner's or operator's plan approved by the Agency and
 1890 USEPA under~~pursuant to~~ subsection (b)(3).
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1892 g) Testing Requirements
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- 1894 1) Testing to demonstrate compliance with the requirements of this Section
 1895 must~~shall~~ be conducted by the owner or operator within 90 days after a
 1896 request by the Agency, or as otherwise specified in this Section. ~~The~~Such
 1897 testing must~~shall~~ be conducted at the expense of the owner or operator and
 1898 the owner or operator must~~shall~~ notify the Agency in writing 30 days in
 1899 advance of conducting the testing to allow the Agency to be present during
 1900 the testing;
 1901
- 1902 2) Testing to demonstrate compliance with the VOM content limitations in
 1903 subsection (b)(1)~~of this Section~~, and to determine the VOM content of
 1904 cleaning solvents and cleaning solutions, must~~shall~~ be conducted as
 1905 follows:
 1906
- 1907 A) The applicable test methods and procedures specified in Section
 1908 219.105(a) must~~of this Part shall~~ be used; provided, however,
 1909 Method 24, incorporated by reference in Section 219.112~~of this~~
 1910 Part, must~~shall~~ be used to demonstrate compliance; or
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- 1912 B) The manufacturer's specifications for VOM content for cleaning
 1913 solvents may be used if such manufacturer's specifications are
 1914 based on results of tests of the VOM content conducted in
 1915 accordance with methods specified in Section 219.105(a)~~of this~~
 1916 Part; provided, however, Method 24 must~~shall~~ be used to
 1917 determine compliance. In the event of any inconsistency between
 1918 a Method 24 test and the manufacturer's specifications, the Method
 1919 24 test must~~shall~~ govern;
 1920
- 1921 3) Testing to determine the VOM composite partial vapor pressure of
 1922 cleaning solvents, cleaning solvent concentrates, and as-used cleaning
 1923 solutions must~~shall~~ be conducted in accordance with the applicable
 1924 methods and procedures specified in Section 219.110~~of this Part~~;
 1925
- 1926 4) For afterburners and carbon adsorbers, the methods and procedures of
 1927 Section 219.105(d) through (f) must~~shall~~ be used for testing to
 1928 demonstrate compliance with the requirements of subsection (b)(3)~~of this~~
 1929 Section, as follows:
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- 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 ~~must~~ 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 ~~must~~ shall be operated at representative operating conditions and flow rates;

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

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

SUBPART F: COATING OPERATIONS

Section 219.204 Emission Limitations

Except as provided in Sections 219.205, 219.207, 219.208, 219.212, 219.215 and 219.216 ~~of this Subpart~~, ~~an~~ owner or operator of a coating line ~~must not~~ shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. Except as otherwise provided in subsections (a), (c), (g), (h), (j), (l), (n), (o), ~~and (q), and (r)~~ ~~of this Section~~, compliance with the emission limitations marked with an asterisk in this Section is required on and after March 15, 1996, and compliance with emission limitations not marked with an asterisk is required until March 15, 1996. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with this Subpart must be demonstrated through the applicable coating analysis test methods and procedures specified in Section 219.105(a) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(c) ~~of this Subpart~~ except where noted. (Note: The equation presented in Section 219.206 ~~must of this Part~~ shall be used to calculate emission limitations for determining compliance by add-on controls, credits for transfer efficiency, emissions trades and cross-line averaging.) The emission limitations are as follows:

a)	Automobile or Light-Duty Truck Coating	kg/l	lb/gal
	1) Prior to May 1, 2012:		
	A) Prime coat	0.14	(1.2)
		0.14*	(1.2)*
	B) Primer surface coat	1.81	(15.1)
		1.81*	(15.1)*

BOARD NOTE: The primer surface coat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation ~~must~~ shall be based on the daily-weighted average from an entire primer surface

2009 operation. Compliance ~~must~~ shall be demonstrated in accordance with the topcoat
 2010 protocol referenced in Section 219.105(b)(1)(A) and the recordkeeping and
 2011 reporting requirements specified in Section 219.211(f). Testing to demonstrate
 2012 compliance ~~must~~ shall be performed in accordance with the topcoat protocol and a
 2013 detailed testing proposal approved by the Agency and USEPA specifying the
 2014 method of demonstrating compliance with the protocol. Section 219.205 does not
 2015 apply to the primer surface limitation.)
 2016

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

2017
 2018 BOARD NOTE: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of
 2019 coating solids deposited. Compliance with the limitation ~~must~~ shall be based on the
 2020 daily-weighted average from an entire topcoat operation. Compliance ~~must~~ shall be
 2021 demonstrated in accordance with the topcoat protocol referenced in Section
 2022 219.105(b)(1)(A) ~~of this Part~~ and the recordkeeping and reporting requirements
 2023 specified in Section 219.211(f). Testing to demonstrate compliance ~~must~~ shall be
 2024 performed in accordance with the topcoat protocol and a detailed testing proposal
 2025 approved by the Agency and USEPA specifying the method of demonstrating
 2026 compliance with the protocol. Section 219.205 ~~of this Part~~ does not apply to the
 2027 topcoat limitation.)
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D)	Final repair coat	kg/l	lb/gal
		0.58	(4.8)
		0.58*	(4.8)*

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 2030 2) On and after May 1, 2012, subject automobile and light-duty truck coating
 2031 lines ~~must~~ shall comply with the following limitations. These limitations
 2032 ~~must~~ shall not apply to materials supplied in containers with a net volume
 2033 of 0.47 liters (16 oz) or less, or a net weight of 0.45 kg (1 lb) or less:
 2034

2035 A) Electrodeposition primer (EDP) operations. For purposes of this
 2036 subsection (a)(2)(A), "electrodeposition" means a water-borne dip
 2037 coating process in which opposite electrical charges are applied to
 2038 the substrate and the coating. The coating is attracted to the
 2039 substrate due to the electrochemical potential difference that is
 2040 created.
 2041

kg VOM/l	lb VOM/gal
coating	coating solids
solids	applied
applied	

- | | | | |
|-----|--|--------------------------------|--|
| i) | When solids turnover ratio (R_T) is greater than or equal to 0.160 | 0.084 | (0.7) |
| ii) | When R_T is greater than or equal to 0.040 and less than 0.160 | $0.084 \times 350^{0.160-R_T}$ | $(0.084 \times 350^{0.160-R_T} \times 8.34)$ |
- B) Primer surfacer operations
- | | | | |
|-----|---|--|---|
| | | kg VOM/l
coating
solids
deposited | lb VOM/gal
coating solids
deposited |
| i) | VOM content limitation | 1.44 | (12.0) |
| ii) | Compliance with the limitation-set forth in subsection (a)(2)(B)(i) must shall be based on the daily-weighted average from an entire primer surfacer operation. Compliance must shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the primer surfacer limitation. | | |
- C) Topcoat operations
- | | | | |
|-----|--|--|---|
| | | kg VOM/l
coating
solids
deposited | lb VOM/gal
coating solids
deposited |
| i) | VOM content limitation | 1.44 | (12.0) |
| ii) | Compliance with the limitation-set forth in subsection (a)(2)(C)(i) must shall be based on the daily-weighted average from an entire topcoat operation. Compliance must shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and the | | |

recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance ~~must~~ be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the topcoat limitation.

D) Combined primer surfacer and topcoat operations

	kg VOM/l coating solids deposited	lb VOM/gal coating solids deposited
i) VOM content limitation	1.44	(12.0)
ii) Compliance with the limitation set forth in subsection (a)(2)(D)(i) must be based on the daily-weighted average from the combined primer surfacer and topcoat operations. Compliance must be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance must be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the combined primer surfacer and topcoat limitation.		

E) Final repair coat operations

	kg/l coatings	lb/gal coatings
i) VOM content limitation	0.58	(4.8)
ii) Compliance with the final repair operations limitation set forth in subsection (a)(2)(E)(i) must be on an occurrence-weighted average basis, calculated in accordance with the equation below, in which clear coatings must have a weighting factor of 2 and all other coatings must have a weighting factor of 1. For purposes of this subsection		

(a)(2)(E)(ii), an "occurrence" is the application of the combination of coatings that constitute a final repair coat for a single automobile or light-duty truck. Section 219.205 does not apply to the final repair coat limitation.

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$$VOM_{tot} = \frac{2VOM_{cc} + \sum_{i=1}^n VOM_i}{n + 2}$$

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where:

VOM_{tot} = Total VOM content of all coatings, as applied, on an occurrence weighted average basis, and used to determine compliance with this subsection (a)(2)(E).

i = Subscript denoting a specific coating applied.

n = Total number of coatings applied in the final repair operation, other than clear coatings.

VOM_{cc} = The VOM content, as applied, of the clear coat used in the final repair operation.

VOM_i = The VOM content of each coating used in the final repair operation, as applied, other than clear coatings.

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F) Miscellaneous Materials. For reactive adhesives subject to this subsection (a)(2)(F), compliance ~~must~~ shall be demonstrated in accordance with the methods and procedures set forth in appendix A to Subpart PPPP of 40 CFR 63, incorporated by reference in Section 219.112 ~~of this Part~~.

		kg/l	lb/gal
i)	Glass bonding primer	0.90	(7.51)
ii)	Adhesive	0.25	(2.09)
iii)	Cavity wax	0.65	(5.42)
iv)	Trunk sealer	0.65	(5.42)
v)	Deadener	0.65	(5.42)

vi)	Gasket/gasket sealing material	0.20	(1.67)
vii)	Underbody coating	0.65	(5.42)
viii)	Trunk interior coating	0.65	(5.42)
ix)	Bedliner	0.20	(1.67)
x)	Weatherstrip adhesive	0.75	(6.26)
xi)	Lubricating wax/compound	0.70	(5.84)

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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)*

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c) Paper Coating

1)	Prior to May 1, 2011:	kg/l 0.28	lb/gal (2.3)
2)	On and after May 1, 2011:	kg VOM/kg (lb VOM/lb) solids applied	kg VOM/kg (lb VOM/lb) coatings applied
A)	Pressure sensitive tape and label surface coatings	0.20	(0.067)
B)	All other paper coatings	0.40	(0.08)

3) The paper coating limitation ~~set forth~~ in this subsection (c) ~~does~~ shall not apply to any owner or operator of any paper coating line on which flexographic, rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in Subpart H ~~of this Part~~. In addition, screen printing on paper is not regulated as paper coating, but is regulated under Subpart TT ~~of this Part~~. On and after May 1, 2011, the paper coating limitation ~~shall~~ does not apply to coating performed on or in-line with any digital printing press, or to size presses and on-machine coaters on papermaking machines applying sizing or water-based clays.

d)	Coil Coating	kg/l 0.31 0.20*	lb/gal (2.6) (1.7)*
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e)	Fabric Coating	0.35 0.28*	(2.9) (2.3)*
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f)	Vinyl Coating	0.45 0.28*	(3.8) (2.3)*
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g) Metal Furniture Coating

1)	Prior to May 1, 2011:	kg/l	lb/gal
A)	Air dried	0.34	(2.8)
B)	Baked	0.28	(2.3)
2)	On and after May 1, 2011:	kg/l	kg/l (lb/gal)

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	(lb/gal)	solids applied
A) General, One Component	0.275 (2.3)	0.40 (3.3)
B) General, Multi-Component		
i) Air dried	0.340 (2.8)	0.55 (4.5)
ii) Baked	0.360 (3.0)	0.61 (5.1)
C) Extreme High Gloss		
i) Air dried	0.340 (2.8)	0.55 (4.5)
ii) Baked	0.360 (3.0)	0.61 (5.1)
D) Extreme Performance		
i) Air dried	0.420 (3.5)	0.80 (6.7)
ii) Baked	0.360 (3.0)	0.61 (5.1)
E) Heat Resistant		
i) Air dried	0.420 (3.5)	0.80 (6.7)
ii) Baked	0.360 (3.0)	0.61 (5.1)
F) Metallic	0.420 (3.5)	0.80 (6.7)
G) Pretreatment Coatings	0.420 (3.5)	0.80 (6.7)
H) Solar Absorbent		
i) Air dried	0.420 (3.5)	0.80 (6.7)
ii) Baked	0.360	0.61

(3.0) (5.1)

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3) On and after May 1, 2011, the limitations set forth in this subsection (g) ~~do~~ shall not apply to stencil coatings, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, touch-up and repair coatings, or coating applications utilizing hand-held aerosol cans.

h) Large Appliance Coating

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

	i) Air dried	0.420 (3.5)	0.80 (6.7)
	ii) Baked	0.360 (3.0)	0.61 (5.1)
F)	Metallic	0.420 (3.5)	0.80 (6.7)
G)	Pretreatment Coatings	0.420 (3.5)	0.80 (6.7)
H)	Solar Absorbent		
	i) Air dried	0.420 (3.5)	0.80 (6.7)
	ii) Baked	0.360	0.61

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3) The limitations set forth in this subsection (h) ~~do shall~~ not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 l (1 quart) in any one rolling eight-hour period. On and after May 1, 2011, these limitations ~~shall~~ also do not apply to stencil coatings, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, touch-up and repair coatings, or coating applications utilizing hand-held aerosol cans.

i)	Magnet Wire Coating	kg/l 0.20 0.20*	lb/gal (1.7) (1.7)*
j)	Prior to May 1, 2012: Miscellaneous Metal Parts and Products Coating		
	1) Clear coating	0.52 0.52*	(4.3) (4.3)*
	2) Extreme performance coating		
	A) Air dried	0.42 0.42*	(3.5) (3.5)*
	B) Baked	0.42 0.40*	(3.5) (3.3)*

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3)	Steel pail and drum interior coating	0.52 0.52*	(4.3) (4.3)*
4)	All other coatings		
A)	Air dried	0.42 0.40*	(3.5) (3.3)*
B)	Baked	0.36 0.34*	(3.0) (2.8)*
5)	Metallic Coating		
A)	Air dried	0.42 0.42*	(3.5) (3.5)*
B)	Baked	0.36 0.36	(3.0) (3.0)*
6)	For purposes of subsection (j)(5) of this Section, "metallic coating" means a coating which contains more than ¼ lb/gal of metal particles, as applied.		

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BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) shall apply to this category of coating.

k)	Heavy Off-Highway Vehicle Products Coating	kg/l	lb/gal
1)	Extreme performance prime coat	0.42 0.42*	(3.5) (3.5)*
2)	Extreme performance topcoat (air dried)	0.42 0.42*	(3.5) (3.5)*
3)	Final repair coat (air dried)	0.42 0.42*	(3.5) (3.5)*
4)	All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j).		
l)	Wood Furniture Coating		
1)	Limitations before March 15, 1998:	kg/l	lb/gal
A)	Clear topcoat	0.67	(5.6)

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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)

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BOARD NOTE: Prior to March 15, 1998, an owner or operator of a wood furniture coating operation subject to this Section ~~must~~ shall apply all coatings, with the exception of no more than 37.8 l (10 gal) of coating per day used for touch-up and repair operations, using one or more of the following application systems: airless spray application system, air-assisted airless spray application system, electrostatic spray application system, electrostatic bell or disc spray application system, heated airless spray application system, roller coating, brush or wipe coating application system, dip coating application system or high volume low pressure (HVLV) 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):

		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)

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- C) Meet the provisions of Section 219.215 ~~of this Subpart~~ for use of an averaging approach;
- D) Achieve a reduction in emissions equivalent to the requirements of subsection (1)(2)(A) or (B) ~~of this Section~~, as calculated using Section 219.216 ~~of this Subpart~~; or
- E) Use a combination of the methods specified in subsections (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)

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4) Other wood furniture coating requirements on and after March 15, 1998:

- A) ~~Any~~ source subject to the limitations of subsection (1), (2) or (3) ~~of this Section~~ and utilizing one or more wood furniture coating spray booths must not shall use strippable spray booth coatings containing more than 0.8 kg VOM/kg solids (0.8 lb VOM/lb solids), as applied.
- B) Any source subject to the limitations of subsection (1)(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 (1)(2)(A) or (B) ~~of this Section~~ and utilizing one or more continuous coaters, must shall for each continuous coater, use an initial coating which complies with the limitations of subsection (1)(2)(A) or (B) ~~of this Section~~. The viscosity of the coating in each reservoir must shall always be greater than or equal to the viscosity of the initial coating in the reservoir. The owner or operator must shall:

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- i) Monitor the viscosity of the coating in the reservoir with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added;
- ii) Collect and record the reservoir viscosity and the amount and weight of VOM per weight of solids of coating and solvent each time coating or solvent is added; and
- iii) Maintain these records at the source for a period of three years.

m)	Prior to May 1, 2012: Plastic Parts Coating: Automotive/Transportation	kg/l	lb/gal
1)	Interiors		
	A) Baked		
	i) Color coat	0.49*	(4.1)*
	ii) Primer	0.46*	(3.8)*
	B) Air dried		
	i) Color coat	0.38*	(3.2)*
	ii) Primer	0.42*	(3.5)*
2)	Exteriors (flexible and non-flexible)		
	A) Baked		
	i) Primer	0.60*	(5.0)*
	ii) Primer non-flexible	0.54*	(4.5)*
	iii) Clear coat	0.52*	(4.3)*
	iv) Color coat	0.55*	(4.6)*
	B) Air dried		
	i) Primer	0.66*	(5.5)*
	ii) Clear coat	0.54*	(4.5)*

	iii)	Color coat (red & black)	0.67*	(5.6)*
	iv)	Color coat (others)	0.61*	(5.1)*
3)		Specialty		
	A)	Vacuum metallizing basecoats, texture basecoats	0.66*	(5.5)*
	B)	Black coatings, reflective argent coatings, air bag cover coatings, and soft coatings	0.71*	(5.9)*
	C)	Gloss reducers, vacuum metallizing topcoats, and texture topcoats	0.77*	(6.4)*
	D)	Stencil coatings, adhesion primers, ink pad coatings, electrostatic prep coatings, and resist coatings	0.82*	(6.8)*
	E)	Head lamp lens coatings	0.89*	(7.4)*

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BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) shall apply to this category of coating.

n)		Prior to May 1, 2012: 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)*

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BOARD NOTE: On and after May 1, 2012, the limitations in Section 219.204(q) shall apply to this category of coating.

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- o) Flat Wood Paneling Coatings. On and after August 1, 2010, flat wood paneling coatings ~~must~~ shall comply with one of the following limitations:
 - 1) 0.25 kg VOM/l of coatings (2.1 lb VOM/gal coatings); or
 - 2) 0.35 kg VOM/l solids (2.9 lb VOM/gal solids).

BOARD NOTE: The Board has omitted subsection (p) and adopted a subsection (q) in order to preserve consistent labeling with similar requirements in 35 Ill. Adm. Code 218.

- q) Miscellaneous Metal Parts and Products Coatings and Plastic Parts and Products Coatings On and After May 1, 2012. On and after May 1, 2012, the owner or operator of a miscellaneous metal or plastic parts coating line ~~must~~ shall comply with the limitations in this subsection (q). The limitations in this subsection (q) ~~do~~ shall not apply to aerosol coating products, powder coatings, or primer sealants and ejection cartridge sealants used in ammunition manufacturing. Primer sealants and ejection cartridge sealants ~~are~~ shall instead be regulated under Subpart TT of this Part.

- 1) Metal Parts and Products. For purposes of this subsection (q)(1), "corrosion resistant basecoat" means a water-borne epoxy coating applied via an electrodeposition process to a metal surface prior to spray coating, for the purpose of enhancing corrosion resistance. The limitations in this subsection (q)(1) ~~do~~ shall not apply to stencil coats, safety-indicating coatings, solid-film lubricants, electric-insulating and thermal-conducting coatings, magnetic data storage disk coatings, and plastic extruded onto metal parts to form a coating. The limitations in Section 219.219, ~~however, shall~~ apply to these coatings unless specifically excluded in Section 219.219.

kg VOM/l	lb VOM/gal
coating	coating
solids	solids
applied	applied

A) General one component coating

- | | | |
|--------------|---------------|----------------|
| i) Air dried | 0.34
(2.8) | 0.54
(4.52) |
| ii) Baked | 0.28
(2.3) | 0.40
(3.35) |

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B)	General multi-component coating		
	i) Air dried	0.34 (2.8)	0.54 (4.52)
	ii) Baked	0.28 (2.3)	0.40 (3.35)
C)	Camouflage coating	0.42 (3.5)	0.80 (6.67)
D)	Electric-insulating varnish	0.42 (3.5)	0.80 (6.67)
E)	Etching filler	0.42 (3.5)	0.80 (6.67)
F)	Extreme high-gloss coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
G)	Extreme performance coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
H)	Heat-resistant coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
I)	High performance architectural	0.42	0.80

	coating	(3.5)	(6.67)
J)	High temperature coating	0.42 (3.5)	0.80 (6.67)
K)	Metallic coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
L)	Military specification coating		
	i) Air dried	0.34 (2.8)	0.54 (4.52)
	ii) Baked	0.28 (2.3)	0.40 (3.35)
M)	Mold-seal coating	0.42 (3.5)	0.80 (6.67)
N)	Pan backing coating	0.42 (3.5)	0.80 (6.67)
O)	Prefabricated architectural coating: multi-component		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.28 (2.3)	0.40 (3.35)
P)	Prefabricated architectural coating: one-component		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.28	0.40

		(2.3)	(3.35)
Q)	Pretreatment coating	0.42 (3.5)	0.80 (6.67)
R)	Repair coats and touch-up coatings		
	i) Air dried	0.42 (3.5)	
	ii) Baked	0.36 (3.01)	
S)	Silicone release coating	0.42 (3.5)	0.80 (6.67)
T)	Solar-absorbent coating		
	i) Air dried	0.42 (3.5)	0.80 (6.67)
	ii) Baked	0.36 (3.0)	0.61 (5.06)
U)	Vacuum-metalizing coating	0.42 (3.5)	0.80 (6.67)
V)	Drum coating, new, exterior	0.34 (2.8)	0.54 (4.52)
W)	Drum coating, new, interior	0.42 (3.5)	0.80 (6.67)
X)	Drum coating, reconditioned, exterior	0.42 (3.5)	0.80 (6.67)
Y)	Drum coating, reconditioned, interior	0.50 (4.2)	1.17 (9.78)
Z)	Ammunition sealants		

i) Air dried	0.42 (3.5)	0.80 (6.67)
ii) Baked	0.36 (3.0)	0.61 (5.06)

AA) Electrical switchgear compartment coatings

i) Air dried	0.42 (3.5)	0.80 (6.67)
ii) Baked	0.36 (3.0)	0.61 (5.06)

BB) All other coatings

i) Air dried	0.40 (3.3)	0.73 (5.98)
ii) Baked: primer/topcoat	0.34 (2.8)	0.54 (4.52)

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2) Plastic Parts and Products: Miscellaneous. For purposes of this subsection (q)(2), miscellaneous plastic parts and products are plastic parts and products that are not subject to subsection (q)(3), (q)(4), (q)(5), or (q)(6) of this Section. The limitations in subsection (q)(2) ~~do~~ shall not apply to touch-up and repair coatings; stencil coats applied on clear or transparent substrates; clear or translucent coatings; coatings applied at a paint manufacturing facility while conducting performance tests on the coatings; any individual coating category used in volumes less than 189.2 liters (50 gallons) in any one calendar year, if the total usage of all such coatings does not exceed 756.9 liters (200 gallons) per calendar year per source and substitute compliant coatings are not available; reflective coatings applied to highway cones; mask coatings that are less than 0.5 mm thick (dried) if the area coated is less than 25 square inches; electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings; and heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices if the total usage of all such coatings does not exceed 378.4 liters (100 gallons) per calendar year per source. The limitations in Section 219.219, ~~however, shall apply to these~~ such coatings unless specifically excluded. ~~in Section 219.219.)~~

		kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	General one component coating	0.28 (2.3)	0.40 (3.35)
B)	General multi-component	0.42 (3.5)	0.80 (6.67)
C)	Electric dissipating coatings and shock-free coatings	0.80 (6.7)	8.96 (74.7)
D)	Extreme performance (2-pack coatings)	0.42 (3.5)	0.80 (6.67)
E)	Metallic coating	0.42 (3.5)	0.80 (6.67)
F)	Military specification coating		
	i) 1-pack coatings	0.28 (2.3)	0.54 (4.52)
	ii) 2-pack coatings	0.42 (3.5)	0.80 (6.67)
G)	Mold-seal coating	0.76 (6.3)	5.24 (43.7)
H)	Multi-colored coating	0.68 (5.7)	3.04 (25.3)
I)	Optical coating	0.80 (6.7)	8.96 (74.7)
J)	Vacuum-metalizing coating	0.80 (6.7)	8.96 (74.7)

3) Plastic Parts and Products
Automotive/Transportation

kg/l kg/l

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	(lb/gal) coatings	(lb/gal) solids
A) High bake coatings – interior and exterior parts		
i) Flexible primer	0.54 (4.5)	1.39 (11.58)
ii) Non-flexible primer	0.42 (3.5)	0.80 (6.67)
iii) Basecoats	0.52 (4.3)	1.24 (10.34)
iv) Clear coat	0.48 (4.0)	1.05 (8.76)
v) Non-basecoat/clear coat	0.52 (4.3)	1.24 (10.34)
B) Low bake/air dried coatings – exterior parts		
i) Primers	0.58 (4.8)	1.66 (13.80)
ii) Basecoat	0.60 (5.0)	1.87 (15.59)
iii) Clear coats	0.54 (4.5)	1.39 (11.58)
iv) Non-basecoat/clear coat	0.60 (5.0)	1.87 (15.59)
C) Low bake/air dried coatings – interior parts		
i) Color coat	0.38 (3.2)	0.67 (5.66)
ii) Primer	0.42	0.80

(3.5) (6.67)

D) Touchup and repair coatings 0.62 2.13
(5.2) (17.72)

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E) Specialty

i) Vacuum metallizing basecoats 0.66 2.62
(5.5) (21.8)

ii) Vacuum metallizing topcoats 0.77 6.06
(6.4) (49.1)

F) Red, yellow, and black coatings: Subject coating lines shall comply with a limit determined by multiplying the appropriate limit in subsections (q)(3)(A) through (q)(3)(C) of this Section by 1.15.

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4) Plastic Parts and Products: Business Machine. The limitations of this subsection (q)(4) ~~do~~ shall not apply to vacuum metallizing coatings, gloss reducers, texture topcoats, adhesion primers, electrostatic preparation coatings, stencil coats, and resist coats other than plating resist coats. The limitations in Section 219.219, ~~however, shall~~ apply to thesesuch coatings unless specifically excluded in ~~Section 219.219~~.

kg/l kg/l
(lb/gal) (lb/gal)
coatings solids

A) Primers 0.35 0.57
(2.9) (4.80)

B) Topcoat 0.35 0.57
(2.9) (4.80)

C) Color coat (texture coat) 0.28 0.40
(2.3) (4.80)

D) Color coat (non-texture coat) 0.28 0.40
(2.3) (4.80)

E)	Texture coats other than color texture coats	0.35 (2.9)	0.57 (4.80)
F)	EMI/RFI shielding coatings	0.48 (4.0)	1.05 (8.76)
G)	Fog coat	0.26 (2.2)	0.38 (3.14)
H)	Touchup and repair	0.35 (2.9)	0.57 (4.80)

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5) Pleasure Craft Surface Coatings

		kg/l (lb/gal) coatings	kg/l (lb/gal) solids
A)	Extreme high gloss coating – topcoat	0.60 (5.0)	1.88 (15.6)
B)	High gloss coating – topcoat	0.42 (3.5)	0.80 (6.7)
C)	Pretreatment wash primer	0.78 (6.5)	6.67 (55.6)
D)	Finish primer surfacer		
	Prior to January 1, 2014	0.60 (5.0)	1.88 (15.6)
	On and after January 1, 2014	0.42 (3.5)	0.80 (6.7)
E)	High build primer/surfacer	0.34 (2.8)	0.55 (4.6)
F)	Aluminum substrate antifoulant coating	0.56 (4.7)	1.53 (12.8)

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G)	Other substrate antifoulant coating	0.40 (3.3)	0.73 (5.8)
H)	Antifouling Sealer/Tie Coat	0.42 (3.5)	0.80 (6.7)
I)	All other pleasure craft surface coatings for metal or plastic	0.42 (3.5)	0.80 (6.7)

6) Motor Vehicle Materials

kg/l
(lb/gal)
coatings

A)	Cavity wax	0.65 (5.42)
B)	Sealer	0.65 (5.42)
C)	Deadener	0.65 (5.42)
D)	Gasket/gasket sealing material	0.20 (1.67)
E)	Underbody coating	0.65 (5.42)
F)	Trunk interior coating	0.65 (5.42)
G)	Bedliner	0.20 (1.67)
H)	Lubricating wax/compound	0.70 (5.84)

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r) Aerospace Facilities. On and after January 1, 2021, the owner or operator of an aerospace facility must comply with the coating limitations in this subsection (r). The limitations in this subsection (r) do not apply to the following activities in which coating of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and electronic parts and

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assemblies (except for coating of completed assemblies). The limitations in this subsection (r) also do not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. The coating limitations in subsection (r)(2) do not apply to aerosol coatings, Department of Defense classified coatings, or the use of separate formulations of aerospace specialty coatings in volumes of less than 50 gallons per year, subject to a maximum exemption of 200 gallons for all such formulations applied annually.

1) VOM Content Limitations for Primers, Topcoats, and Chemical Milling Maskants

	<u>kg/l</u>	<u>lb/gal</u>
A) <u>Aerospace primer</u>	<u>0.350</u>	<u>(2.9)</u>
B) <u>Primer for general aviation rework facility</u>	<u>0.540</u>	<u>(4.5)</u>
C) <u>Exterior primer for large commercial aircraft (components or fully assembled)</u>	<u>0.650</u>	<u>(5.4)</u>
D) <u>Topcoat</u>	<u>0.420</u>	<u>(3.5)</u>
E) <u>Topcoat for general aviation rework facility</u>	<u>0.540</u>	<u>(4.5)</u>
F) <u>Self-priming topcoat for aerospace applications</u>	<u>0.420</u>	<u>(3.5)</u>
G) <u>Self-priming topcoat for general aviation rework facility</u>	<u>0.540</u>	<u>(4.5)</u>
H) <u>Chemical milling maskant, type I</u>	<u>0.662</u>	<u>(5.2)</u>
I) <u>Chemical milling maskant, type II</u>	<u>0.160</u>	<u>(1.3)</u>

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2) VOM Content Limitations for Aerospace Specialty Coatings

	<u>kg/l</u>	<u>lb/gal</u>
A) <u>Ablative coating</u>	<u>0.600</u>	<u>(5.0)</u>

B)	<u>Adhesion promoter for aerospace applications</u>	<u>0.890</u>	<u>(7.4)</u>
C)	<u>Adhesive bonding primer cured above 250°F</u>	<u>1.030</u>	<u>(8.6)</u>
D)	<u>Adhesive bonding primer cured at or below 250°F</u>	<u>0.850</u>	<u>(7.1)</u>
E)	<u>Aerospace flexible primer</u>	<u>0.640</u>	<u>(5.3)</u>
F)	<u>Aerospace pretreatment coating</u>	<u>0.780</u>	<u>(6.5)</u>
G)	<u>Antichafe coating</u>	<u>0.660</u>	<u>(5.5)</u>
H)	<u>Bearing coating</u>	<u>0.620</u>	<u>(5.2)</u>
I)	<u>Bonding maskant</u>	<u>1.230</u>	<u>(10.3)</u>
J)	<u>Caulking and smoothing compounds</u>	<u>0.850</u>	<u>(7.1)</u>
K)	<u>Chemical agent-resistant coating</u>	<u>0.550</u>	<u>(4.6)</u>
L)	<u>Clear coating for aerospace applications</u>	<u>0.720</u>	<u>(6.0)</u>
M)	<u>Commercial exterior aerodynamic structure primer</u>	<u>0.650</u>	<u>(5.4)</u>
N)	<u>Commercial interior adhesive</u>	<u>0.750</u>	<u>(6.3)</u>
O)	<u>Compatible substrate primer</u>	<u>0.780</u>	<u>(6.5)</u>
P)	<u>Corrosion prevention system</u>	<u>0.710</u>	<u>(5.9)</u>
Q)	<u>Critical use and line sealer maskant</u>	<u>1.020</u>	<u>(8.5)</u>
R)	<u>Cryogenic flexible primer</u>	<u>0.650</u>	<u>(5.4)</u>
S)	<u>Cryoprotective coating</u>	<u>0.600</u>	<u>(5.0)</u>
T)	<u>Cyanoacrylate adhesive</u>	<u>1.020</u>	<u>(8.5)</u>

<u>U)</u>	<u>Dry lubricative material for aerospace applications</u>	<u>0.870</u>	<u>(7.3)</u>
<u>V)</u>	<u>Electrostatic discharge and electromagnetic interference coating</u>	<u>0.800</u>	<u>(6.7)</u>
<u>W)</u>	<u>Elevated temperature Skydrol-resistant commercial primer</u>	<u>0.740</u>	<u>(6.2)</u>
<u>X)</u>	<u>Epoxy-polyamide topcoat</u>	<u>0.660</u>	<u>(5.5)</u>
<u>Y)</u>	<u>Extrudable, rollable, or brushable sealant for aerospace applications</u>	<u>0.280</u>	<u>(2.3)</u>
<u>Z)</u>	<u>Fire-resistant interior coating</u>	<u>0.800</u>	<u>(6.7)</u>
<u>AA)</u>	<u>Flight test coatings: missile or single use aircraft</u>	<u>0.420</u>	<u>(3.5)</u>
<u>BB)</u>	<u>Flight test coatings: all other</u>	<u>0.840</u>	<u>(7.0)</u>
<u>CC)</u>	<u>Fuel tank adhesive for aerospace applications</u>	<u>0.620</u>	<u>(5.2)</u>
<u>DD)</u>	<u>Fuel tank coating for aerospace applications</u>	<u>0.720</u>	<u>(6.0)</u>
<u>EE)</u>	<u>High temperature coating</u>	<u>0.850</u>	<u>(7.1)</u>
<u>FF)</u>	<u>Insulation covering</u>	<u>0.740</u>	<u>(6.2)</u>
<u>GG)</u>	<u>Intermediate release coating</u>	<u>0.750</u>	<u>(6.3)</u>
<u>HH)</u>	<u>Lacquer</u>	<u>0.830</u>	<u>(6.9)</u>
<u>II)</u>	<u>Metalized epoxy coating</u>	<u>0.740</u>	<u>(6.2)</u>
<u>JJ)</u>	<u>Mold release coating for aerospace applications</u>	<u>0.780</u>	<u>(6.5)</u>
<u>KK)</u>	<u>Nonstructural adhesive for</u>	<u>0.360</u>	<u>(3.0)</u>

aerospace applications

<u>LL)</u>	<u>Optical anti-reflective coating</u>	<u>0.750</u>	<u>(6.3)</u>
<u>MM)</u>	<u>Part marking aerospace coating</u>	<u>0.850</u>	<u>(7.1)</u>
<u>NN)</u>	<u>Radiation-effect or electric coating</u>	<u>0.800</u>	<u>(6.7)</u>
<u>OO)</u>	<u>Rain erosion-resistant coating</u>	<u>0.850</u>	<u>(7.1)</u>
<u>PP)</u>	<u>Rocket motor bonding adhesive</u>	<u>0.890</u>	<u>(7.4)</u>
<u>QQ)</u>	<u>Rocket motor nozzle coating</u>	<u>0.660</u>	<u>(5.5)</u>
<u>RR)</u>	<u>Rubber-based adhesive</u>	<u>0.850</u>	<u>(7.1)</u>
<u>SS)</u>	<u>Scale inhibitor</u>	<u>0.870</u>	<u>(7.3)</u>
<u>TT)</u>	<u>Screen print ink for aerospace applications</u>	<u>0.840</u>	<u>(7.0)</u>
<u>UU)</u>	<u>Seal coat maskant</u>	<u>1.230</u>	<u>(10.3)</u>
<u>VV)</u>	<u>Sprayable sealant for aerospace applications</u>	<u>0.600</u>	<u>(5.0)</u>
<u>WW)</u>	<u>Silicone insulation material</u>	<u>0.850</u>	<u>(7.1)</u>
<u>XX)</u>	<u>Solid film lubricant</u>	<u>0.870</u>	<u>(7.3)</u>
<u>YY)</u>	<u>Specialized function coating</u>	<u>0.890</u>	<u>(7.4)</u>
<u>ZZ)</u>	<u>Structural autoclavable adhesive for aerospace applications</u>	<u>0.060</u>	<u>(0.5)</u>
<u>AAA)</u>	<u>Structural nonautoclavable adhesive for aerospace applications</u>	<u>0.850</u>	<u>(7.1)</u>
<u>BBB)</u>	<u>Temporary protective coating for aerospace applications</u>	<u>0.320</u>	<u>(2.7)</u>
<u>CCC)</u>	<u>Thermal control coating for aerospace applications</u>	<u>0.800</u>	<u>(6.7)</u>

DDD) Wet fastener installation coating 0.670 (5.6)

EEE) Wing coating 0.850 (7.1)

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

Section 219.205 Daily-Weighted Average Limitations

~~An~~ owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ and complying by means of this Section must not ~~shall~~ operate the subject coating line unless the owner or operator has demonstrated compliance with subsection (a), (b), (c), (d), (e), (f), (g), (h), (i), ~~or (j), or (k) of this Section~~ (depending upon the category of coating) through the applicable coating analysis test methods and procedures specified in Section 219.105(a) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(d) ~~of this Subpart~~:

- a) ~~An~~ owner or operator of a coating line subject to only one of the limitations from among Section 219.204(a)(1)(A), (a)(1)(D), (a)(2)(A), (a)(2)(E), (a)(2)(F), (c)(1), (d), (e), (f), (i), or (o) must not ~~of this Subpart shall~~ apply coatings on any such coating line, during any day, whose daily-weighted average VOM content exceeds the emission limitation to which the coatings are subject.

- b) Prior to May 1, 2012, ~~an~~ owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 219.204(j) must not ~~of this Subpart shall~~ apply coatings to miscellaneous metal parts or products on the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.
 - 1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(j) ~~of this Subpart~~ during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content must ~~shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or

 - 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(j) ~~of this Subpart~~, during the same day, the owner or operator must ~~shall~~ have a site-specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

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c) ~~An~~ No owner or operator of a can coating line subject to the limitations of Section 219.204(b) ~~must not~~ of this Subpart shall operate the subject coating line using a coating with a VOM content in excess of the limitations specified in Section 219.204(b) ~~of this Subpart~~ unless all of the following requirements are met:

- 1) An alternative daily emission limitation for the can coating operation, i.e., for all of the can coating lines at the source, ~~must~~ shall be determined according to subsection (c)(2) ~~of this Section~~. Actual daily emissions ~~must~~ shall never exceed the alternative daily emission limitation and ~~must~~ shall be calculated by use of the following equation.

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

where:

- E_d = Actual VOM emissions for the day in units of kg/day (lbs/day);
- i = Subscript denoting a specific coating applied;
- n = Total number of coatings applied in the can coating operation, i.e., all can coating lines at the source;
- V_i = Volume of each coating applied for the day in units of l/day (gal/day) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);
- C_i = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM).

- 2) The alternative daily emission limitation (A_d) ~~must~~ shall be determined for the can coating operation, i.e., for all of the can coating lines at the source, on a daily basis as follows:

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

where:

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- A_d = The VOM emissions allowed for the day in units of kg/day (lbs/day);
- i = Subscript denoting a specific coating applied;
- n = Total number of surface coatings applied in the can coating operation;
- C_i = The VOM content of each surface coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);
- D_i = The density of VOM in each coating applied. For the purposes of calculating A_d , the density is 0.882kg VOM/l VOM (7.36 lbs VOM/gal VOM);
- V_i = Volume of each surface coating applied for the day in units of l (gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);
- L_i = The VOM emission limitation for each surface coating applied as specified in Section 219.204(b) of this Subpart in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM).

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- d) ~~An~~ owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 219.204(k) ~~must not of this Subpart shall~~ apply coatings to heavy off-highway vehicle products on the subject coating line unless the requirements of subsection (d)(1) or (d)(2) ~~of this Section~~ are met.
 - 1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(k) ~~of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal), the daily-weighted average VOM content ~~must shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or
 - 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(k) ~~of this Subpart~~, during the same day, the owner or operator ~~must shall~~ have a site specific

2333 proposal approved by the Agency and approved by the USEPA as a SIP
 2334 revision. To receive approval, the requirements of USEPA's Emissions
 2335 Trading Policy Statement (and related policy), 51 Fed. Reg. 43814
 2336 (December 4, 1986), must be satisfied.
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2338 e) ~~An~~ owner or operator of a wood furniture coating line subject to the limitations
 2339 of Section 219.204(l)(1) or (l)(3) ~~must not of this Subpart shall~~ apply coatings to
 2340 wood furniture on the subject coating line unless the requirements of subsection
 2341 (e)(1) or (e)(2) ~~of this Section,~~ in addition to the requirements specified in the
 2342 note to Section 219.204(l)(1) ~~of this Subpart,~~ are met.
 2343

2344 1) For each coating line that applies multiple coatings, all of which are
 2345 subject to the same numerical emission limitation within Section
 2346 219.204(l)(1) or (l)(3) ~~of this Subpart,~~ during the same day (e.g., all
 2347 coatings used on the line are subject to 0.67 kg/l (5.6 lbs/gal)), the daily-
 2348 weighted average VOM content ~~must shall~~ not exceed the coating VOM
 2349 content limit corresponding to the category of coating used; or
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2351 2) For each coating line that applies coatings subject to more than one
 2352 numerical emission limitation in Section 219.204(l)(1) or (l)(3) ~~of this~~
 2353 ~~Subpart,~~ during the same day, the owner or operator ~~must shall~~ have a site
 2354 specific proposal approved by the Agency and approved by the USEPA as
 2355 a SIP revision. To receive approval, the requirements of USEPA's
 2356 Emissions Trading Policy Statement (and related policy), 51 Fed. Reg.
 2357 43814 (December 4, 1986), must be satisfied.
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2359 f) Prior to May 1, 2012, ~~an~~ owner or operator of a plastic parts coating line
 2360 subject to the limitations of Section 219.204(m) or (n) ~~must not of this Subpart~~
 2361 ~~shall~~ apply coatings to business machine or automotive/transportation plastic parts
 2362 on the subject coating line unless the requirements of subsection (f)(1) or (f)(2) ~~of~~
 2363 ~~this Section~~ are met.
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2365 1) For each coating line that applies multiple coatings, all of which are
 2366 subject to the same numerical emission limitation within Section
 2367 219.204(m) or (n) ~~of this Subpart,~~ during the same day (e.g., all coatings
 2368 used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted
 2369 average VOM content ~~must shall~~ not exceed the coating VOM content
 2370 limit corresponding to the category of coating used; or
 2371

2372 2) For each coating line that applies coatings subject to more than one
 2373 numerical emission limitation in Section 219.204(m) or (n) ~~of this~~
 2374 ~~Subpart,~~ during the same day, the owner or operator ~~must shall~~ have a site
 2375 specific proposal approved by the Agency and USEPA as a SIP revision.

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To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

- g) ~~An~~ owner or operator of a metal furniture coating line subject to the limitations of Section 219.204(g) ~~must not of this Subpart shall~~ apply coatings on the subject coating line unless the requirements of subsection (g)(1) or (g)(2) ~~of this Section~~ are met:
 - 1) For each coating line that 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 ~~must shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or
 - 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(g) ~~of this Subpart~~, during the same day, the owner or operator ~~must 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) ~~must not of this Subpart shall~~ apply coatings on the subject coating line unless the requirements of subsection (h)(1) or (h)(2) ~~of this Section~~ are met.
 - 1) For each coating line that 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 ~~must shall~~ not exceed the coating VOM content limit corresponding to the category of coating used; or
 - 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(h) ~~of this Subpart~~, during the same day, the owner or operator ~~must shall~~ have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.
- i) On and after May 1, 2011, ~~an~~ owner or operator of a paper coating line subject to the limitations of Section 219.204(c) ~~must not of this Subpart shall~~ apply

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coatings on the subject coating line unless the requirements in subsection (i)(1) or (i)(2) of this Section are met:

- 1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(c) during the same day (e.g., all coatings used on the line are subject to 0.40 kg/kg solids (0.08 kg/kg coatings)), the daily-weighted average VOM content ~~must~~ shall not exceed the coating VOM content limit corresponding to the category of coating used; or
- 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(c) during the same day, the owner or operator ~~must~~ shall have a site-specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy), 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

j) On and after May 1, 2012, ~~an~~ owner or operator of a miscellaneous metal parts and products coating line, plastic parts or products coating line, pleasure craft surface coating line, or motor vehicle materials coating line subject to the limitations of Section 219.204(q) ~~must not~~ of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (j)(1) or (j)(2) of this Section are met:

- 1) For each coating line that applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(q) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM content ~~must~~ shall not exceed the coating VOM content limit corresponding to the category of coating used; or
- 2) For each coating line that applies coatings subject to more than one numerical emission limitation in Section 219.204(q) of this Subpart, during the same day, the owner or operator ~~must~~ shall have a site specific proposal approved by the Agency and approved by USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

k) An owner or operator of an aerospace facility subject to the limitations of Section 219.204(r) must not apply coatings at the subject facility unless the requirements of subsection (k)(1) or (k)(2) are met:

- 2462 1) For each averaging plan that involves multiple coatings, all of which are
 2463 subject to the same numerical emission limitation within Section
 2464 219.204(r), during the same day (e.g., all coatings used on the line are
 2465 subject to 0.42 kg/l (3.5 lbs/gal)), the daily-weighted average VOM
 2466 content must not exceed the coating VOM content limit corresponding to
 2467 the category of coating used;
- 2468
- 2469 2) For each averaging plan that involves coatings subject to more than one
 2470 numerical emission limitation in Section 219.204(r), during the same day,
 2471 the owner or operator must have a site specific proposal approved by the
 2472 Agency and approved by USEPA as a SIP revision. To receive approval,
 2473 the requirements of USEPA's Emissions Trading Policy Statement (and
 2474 related policy) must be satisfied.

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 2476 (Source: Amended at 45 Ill. Reg. _____, effective _____)
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2478 **Section 219.207 Alternative Emission Limitations**
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- 2480 a) Any owner or operator of a coating line subject to Section 219.204 ~~of this~~
 2481 ~~Subpart~~, except coating lines subject to Section 219.204(q)(6), may comply with
 2482 this Section, rather than with Section 219.204 ~~of this Subpart~~, if a capture system
 2483 and control device are operated at all times the coating line is in operation and the
 2484 owner or operator demonstrates compliance with subsection (c), (d), (e), (f), (g),
 2485 (h), (i), (j), (k), (l), ~~or (m), or (n) of this Section~~ (depending upon the source
 2486 category) through the applicable coating analysis and capture system and control
 2487 device efficiency test methods and procedures specified in Section 219.105 ~~of this~~
 2488 ~~Part~~ and the recordkeeping and reporting requirements specified in Section
 2489 219.211(e) ~~of this Subpart~~; and the control device is equipped with the applicable
 2490 monitoring equipment specified in Section 219.105(d) ~~of this Part~~ and the
 2491 monitoring equipment is installed, calibrated, operated and maintained according
 2492 to vendor specifications at all times the control device is in use. A capture system
 2493 and control device, which does not demonstrate compliance with subsection (c),
 2494 (d), (e), (f), (g), (h), (i), (j), (k), (l), ~~or (m), or (n) of this Section~~ may be used as an
 2495 alternative to compliance with Section 219.204 ~~of this Subpart~~ only if the
 2496 alternative is approved by the Agency and approved by the USEPA as a SIP
 2497 revision.
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- 2499 b) Alternative Add-On Control Methodologies
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- 2501 1) The coating line is equipped with a capture system and control device that
 2502 provides 81 percent reduction in the overall emissions of VOM from the
 2503 coating line and the control device has a 90 percent efficiency; or
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- 2505 2) The system used to control VOM from the coating line is demonstrated to
 2506 have an overall efficiency sufficient to limit VOM emissions to no more
 2507 than what is allowed under Section 219.204 ~~of this Subpart~~. Use of any
 2508 control system other than an afterburner, carbon adsorption, condensation,
 2509 or absorption scrubber system can be allowed only if approved by the
 2510 Agency and approved by the USEPA as a SIP revision. The use of transfer
 2511 efficiency credits can be allowed only if approved by the Agency and
 2512 approved by the USEPA as a SIP revision. Baseline transfer efficiencies
 2513 and transfer efficiency test methods must be approved by the Agency and
 2514 the USEPA. Such overall efficiency is to be determined as follows:
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- 2516 A) Obtain the emission limitation from the appropriate subsection in
 2517 Section 219.204 ~~of this Subpart~~;
 - 2518
 - 2519 B) Unless complying with an emission limitation in Section 219.204
 2520 that is already expressed in terms of weight of VOM per volume of
 2521 solids, calculate "S" according to the equation in Section 219.206
 2522 ~~of this Subpart~~. For coating lines subject to an emission limitation
 2523 in Section 219.204 that is already expressed in terms of weight of
 2524 VOM per volume of solids, "S" is equal to such emission
 2525 limitation;
 - 2526
 - 2527 C) Calculate the overall efficiency required according to Section
 2528 219.105(e) ~~of this Part~~. For the purposes of calculating this value,
 2529 according to the equation in Section 219.105(e)(2) ~~of this Part~~,
 2530 VOM_1 is equal to the value of "S" as determined in subsection
 2531 (b)(2)(B) ~~of this Section~~. If the coating line is subject to an
 2532 emission limitation in Section 219.204 ~~of this Subpart~~ that is
 2533 already expressed in terms of weight of VOM per volume of
 2534 solids, VOM_1 is equal to that emission limitation.
 2535
- 2536 c) ~~An~~ owner or operator of a coating line subject to only one of the emission
 2537 limitations from among Section 219.204(a)(1)(A), (a)(1)(D), (a)(2)(A), (a)(2)(E),
 2538 (a)(2)(F), (c)(1), (d), (e), (f), or (i) ~~of this Subpart~~ and equipped with a capture
 2539 system and control device must not ~~shall~~ operate the subject coating line unless the
 2540 requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met. ~~An~~ owner or
 2541 operator of a coating line subject to Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B),
 2542 (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ and equipped with a capture system and
 2543 control device must not ~~shall~~ operate the coating line unless the owner or operator
 2544 demonstrates compliance with such limitation in accordance with the topcoat
 2545 protocol referenced in Section 219.105(b)(1)(A) or (b)(1)(B), as applicable.
 2546
- 2547 d) ~~An~~ owner or operator of a miscellaneous metal parts and products coating line

2548 that applies one or more coatings during the same day, all of which are subject to
 2549 the same numerical emission limitation within Section 219.204(j) ~~of this Subpart~~
 2550 (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is
 2551 equipped with a capture system and control device must not ~~shall~~ operate the
 2552 subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this~~
 2553 ~~Section~~ are met.

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 2555 e) ~~An~~ No owner or operator of a heavy off-highway vehicle products coating line that
 2556 applies one or more coatings during the same day, all of which are subject to the
 2557 same numerical emission limitation within Section 219.204(k) ~~of this Subpart~~
 2558 (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is
 2559 equipped with a capture system and control device must not ~~shall~~ operate the
 2560 subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this~~
 2561 ~~Section~~ are met.

2562
 2563 f) ~~An~~ No owner or operator of a wood furniture coating line that applies one or more
 2564 coatings during the same day, all of which are subject to the same numerical
 2565 emission limitation within Section 219.204(l) ~~of this Subpart~~ (e.g., all coatings
 2566 used on the line are subject to 0.67 kg/l (5.6 lbs/gal)), and that is equipped with a
 2567 capture system and control device must not ~~shall~~ operate the subject coating line
 2568 unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met. If
 2569 compliance is achieved by meeting the requirements in subsection (b)(2) ~~of this~~
 2570 ~~Section~~, then the provisions in the note to Section 219.204(l) ~~of this Subpart~~ must
 2571 also be met.

2572
 2573 g) ~~An~~ No owner or operator of a can coating line equipped with a capture system and
 2574 control device must not ~~shall~~ operate the subject coating line unless the
 2575 requirements in subsection (g)(1) or (g)(2) ~~of this Section~~ are met.

2576
 2577 1) An alternative daily emission limitation for the can coating operation, i.e.,
 2578 for all of the can coating lines at the source, must ~~shall~~ be determined
 2579 according to Section 219.205(c)(2) ~~of this Subpart~~. Actual daily emissions
 2580 must not ~~shall never~~ exceed the alternative daily emission limitation and
 2581 must ~~shall~~ be calculated by use of the following equation:

2582
 2583
$$E_d = \sum_{i=1}^n V_i C_i (1 - F_i)$$

2584
 2585 where:

2586 E_d = Actual VOM emissions for the day in units of kg/day
 (lbs/day);

- i = Subscript denoting the specific coating applied;
- n = Total number of surface coatings as applied in the can coating operation;
- V_i = Volume of each coating as applied for the day in units of l/day (gal/day) of coating (minus water and any compounds that are specifically exempted from the definition of VOM);
- C_i = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds that are specifically exempted from the definition of VOM); and
- F_i = Fraction, by weight, of VOM emissions from the surface coating, reduced or prevented from being emitted to the ambient air. This is the overall efficiency of the capture system and control device.

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2) The coating line is equipped with a capture system and control device that provide 75 percent reduction in the overall emissions of VOM from the coating line and the control device has a 90 percent efficiency.

- h) ~~An~~ owner or operator of a plastic parts coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(m) or (n) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.42 kg/l (3.5 lbs/gal)), and that is equipped with a capture system and control device must not shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.
- i) Prior to May 1, 2011, ~~an~~ owner or operator of a metal furniture coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(g) ~~of this Subpart~~ (e.g., all coatings used on the line are subject to 0.34 kg/l (2.8 lbs/gal)), and that is equipped with a capture system and control device must not shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this Section~~ are met.
- j) Prior to May 1, 2011, ~~an~~ owner or operator of a large appliance coating line that applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(h) ~~of this Subpart~~

- 2611 (e.g., all coatings used on the line are subject to 0.34 kg/l (2.8 lbs/gal)), and that is
 2612 equipped with a capture system and control device must not shall operate the
 2613 subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~of this~~
 2614 ~~Section~~ are met.
 2615
- 2616 k) On and after May 1, 2011, ~~an~~ owner or operator of a paper coating line, metal
 2617 furniture coating line, or large appliance coating line that is equipped with a
 2618 capture system and control device must not shall operate the subject coating line
 2619 unless either:
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- 2621 1) The capture system and control device provide at least 90 percent
 2622 reduction in the overall emissions of VOM from the coating line; or
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 - 2624 2) The owner or operator complies with the applicable limitation ~~set forth in~~
 2625 Section 219.204 ~~of this Subpart~~ by utilizing a combination of low-VOM
 2626 coatings and a capture system and control device.
 2627
- 2628 l) ~~An~~ owner or operator of a flat wood paneling coating line that is equipped with
 2629 a capture system and control device must not shall operate the subject coating line
 2630 unless either:
 2631
- 2632 1) The capture system and control device provide at least 90 percent
 2633 reduction in the overall emissions of VOM from the coating line; or
 2634
 - 2635 2) The owner or operator of the flat wood paneling coating line complies
 2636 with all requirements set forth in subsection (b)(2) ~~of this Section~~.
 2637
- 2638 m) On and after May 1, 2011, ~~an~~ owner or operator of a miscellaneous metal parts
 2639 and products coating line, plastic parts and products coating line, or pleasure craft
 2640 surface coating line that is equipped with a capture system and control device
 2641 must not shall operate the subject coating line unless:
 2642
- 2643 1) The capture system and control device provide at least 90 percent
 2644 reduction in the overall emissions of VOM from the coating line; or
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 - 2646 2) The owner or operator of the coating line complies with all requirements
 2647 set forth in subsection (b)(2) ~~of this Section~~.
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- 2649 n) An owner or operator of an aerospace facility that is equipped with a capture
 2650 system and control device must not operate the subject aerospace coating
 2651 operation unless:
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- 1) The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the aerospace coating operation; or
- 2) The owner or operator of the aerospace coating operation complies with all requirements set forth in subsection (b)(2).

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

Section 219.208 Exemptions From Emission Limitations

- a) Exemptions for all coating categories except wood furniture coating and aerospace facilities. The limitations of this Subpart ~~do~~ shall not apply to coating lines within a source, that otherwise would be subject to the same subsection of Section 219.204 (because they belong to the same coating category, e.g., can coating), provided that combined actual emissions of VOM from all lines at the source subject to that subsection never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices. (For example, can coating lines within a source would not be subject to the limitations of Section 219.204(b) ~~of this Subpart~~ if the combined actual emissions of VOM from the can coating lines never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices.) Prior to May 2012, volatile organic material emissions from heavy off-highway vehicle products coating lines must be combined with VOM emissions from miscellaneous metal parts and products coating lines to determine applicability. On and after May 1, 2012, VOM emissions from heavy off-highway vehicle products coating lines ~~must~~ shall be combined with VOM emissions from miscellaneous metal parts and products coating lines and plastic parts and products coating lines to determine applicability. Any owner or operator of a coating source ~~must~~ shall comply with the applicable coating analysis test methods and procedures specified in Section 219.105(a) ~~of this Part~~ and the recordkeeping and reporting requirements specified in Section 219.211(a) ~~of this Subpart~~ if total VOM emissions from the subject coating lines are always less than or equal to 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices and, therefore, are not subject to the limitations of Section 219.204 ~~of this Subpart~~. Once a category of coating lines at a source is subject to the limitations in Section 219.204 ~~of this Part~~ the coating lines are always subject to the limitations in Section 219.204 ~~of this Subpart~~.
- b) Applicability for Wood Furniture Coating ~~wood furniture coating~~
 - 1) The limitations of this Subpart ~~shall~~ apply to a source's wood furniture coating lines if the source contains process emission units, not regulated

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by Subparts B, E, F (excluding Section 219.204(l) ~~of this Subpart~~), H (excluding Section 219.405 ~~of this Part~~), Q, R, S, T (excluding Section 219.486 ~~of this Part~~), V, X, Y, Z or BB ~~of this Part~~, which as a group both:

- A) Have a maximum theoretical emissions of 91 Mg (100 tons) or more per calendar year of VOM if no air pollution control equipment were used; and
- B) Are not limited to less than 91 Mg (100 tons) of VOM per calendar year if no air pollution control equipment were used, through production or capacity limitations contained in a federally enforceable permit or SIP revision.

2) The limitations of this Subpart ~~shall~~ apply to a source's wood furniture coating lines, on and after March 15, 1996, if the source contains process emission units, which as a group, have a potential to emit 22.7 Mg (25 tons) or more of VOM per calendar year and have not limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable operating permit or SIP revision, and that:

- A) Are not regulated by Subparts B, E, F (excluding Section 219.204(l) ~~of this Subpart~~), H, Q, R, S, T (excluding Section 219.486 ~~of this Part~~), V, X, Y, Z or BB ~~of this Part~~; and
- B) Are not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.

3) If a source ceases to fulfill the criteria of subsection (b)(1) or (b)(2) ~~of this Section~~, the limitations of Section 219.204(l) ~~of this Subpart~~ shall continue to apply to any wood furniture coating line which was ever subject to the limitations of Section 219.204(l) ~~of this Subpart~~.

4) For the purposes of this subsection (b) ~~of this Section~~, an emission unit ~~is~~ shall be considered to be regulated by a Subpart if it is subject to the limitations of that Subpart. An emission unit is not considered regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.

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- 5) Any owner or operator of a wood furniture coating line to which the limitations of this Subpart are not applicable due to the criteria in this subsection (b) ~~must of this Section shall~~, upon request by the Agency or the USEPA, submit records to the Agency and the USEPA within 30 calendar days from the date of the request that document that the coating line is exempt from the limitations of this Subpart.

- c) On and after March 15, 1996, the limitations of this Subpart ~~do shall~~ not apply to touch-up and repair coatings used by a coating source described by Section 219.204(b), (d), (f), (g), (i), and (q)(5) ~~of this Subpart~~; provided that the source-wide volume of ~~thesesueh~~ coatings used does not exceed 0.95 l (1 quart) per eight-hour period or exceed 209 l/yr (55 gal/yr) for any rolling 12 month period. Recordkeeping and reporting for touch-up and repair coatings must shall be consistent with subsection (d) ~~of this Section~~.

- d) Prior to May 1, 2012, the limitations of this Subpart ~~do shall~~ not apply to touch-up and repair coatings used by a coating source described by Section 219.204(j), (m), and (n) ~~of this Subpart~~, provided that the source-wide volume of the coatings used does not exceed 0.95 l (1 quart) per eight-hour period or exceed 209 l/yr (55 gal/yr) for any rolling twelve month period. Recordkeeping and reporting for touch-up and repair coatings must shall be consistent with subsection (e) ~~of this Section~~.

- e) On and after March 15, 1996, the owner or operator of a coating line or a group of coating lines using touch-up and repair coatings that are exempted from the limitations of Section 219.204(b), (d), (f), (g), (i), (j), (m), (n), and (q)(5) ~~of this Subpart~~ because of the provisions of subsection (c) or (d) ~~must of this Section shall~~:
 - 1) Collect and record the name, identification number, and volume used of each touch-up and repair coating, as applied on each coating line, per eight-hour period and per month;
 - 2) Perform calculations on a daily basis, and maintain at the source records of such calculations of the combined volume of touch-up and repair coatings used source-wide for each eight-hour period;
 - 3) Perform calculations on a monthly basis, and maintain at the source records of such calculations of the combined volume of touch-up and repair coatings used source-wide for the month and the rolling 12 month period;

- 2782 4) Prepare and maintain at the source an annual summary of the information
2783 required to be compiled ~~underpursuant to~~ subsections (e)(1) and (e)(2) of
2784 this Section on or before January 31 of the following year;
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2786 5) Maintain at the source for a minimum period of three years all records
2787 required to be kept under this subsection (e) and make ~~thesueh~~ records
2788 available to the Agency upon request;
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2790 6) Notify the Agency in writing if the use of touch-up and repair coatings at
2791 the source ever exceeds a volume of 0.95 l (1 quart) per eight-hour period
2792 or exceeds 209 l/yr (55 gal/yr) for any rolling 12 month period within 30
2793 days after any such exceedance. ~~TheSueh~~ notification ~~mustshah~~ include a
2794 copy of any records of ~~thesueh~~ exceedance; and
2795
2796 7) "Touch-up and repair coatings" means, for purposes of 35 Ill. Adm. Code
2797 219.208, any coating used to cover minor scratches and nicks that occur
2798 during manufacturing and assembly processes.
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2800 f) Applicability for Aerospace Facilities

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2802 1) Except as provided in subsection (f)(6), the requirements of this Subpart
2803 apply to an aerospace facility's aerospace coating operations and cleaning
2804 operations on and after January 1, 2021, if the source contains process
2805 emission units that, as a group, have a potential to emit 22.7 Mg (25 tons)
2806 or more of VOM per calendar year and have not limited emissions to less
2807 than 22.7 Mg (25 tons) of VOM per calendar year through production or
2808 capacity limitations contained in a federally enforceable permit or SIP
2809 revision.
2810
2811 2) If a source ceases to fulfill the criteria of subsection (f)(1), the
2812 requirements of this Subpart continue to apply to any aerospace facility
2813 that was ever subject to the requirements of this Subpart.
2814
2815 3) The limitations of Section 219.204(r)(2) do not apply to touch-up coatings
2816 at aerospace facilities, provided that the combined source-wide volume of
2817 the coatings that do not comply with the limitations of Section
2818 219.204(r)(2) used at an aerospace facility does not exceed 2.85 l (3
2819 quarts) per 24-hour period or exceed 209 l/yr (55 gal/yr) for any rolling
2820 12-month period. Recordkeeping and reporting for touch-up coatings
2821 must be consistent with Section 219.211(j)(2).
2822
2823 4) The requirements in Section 219.211(k) apply to an aerospace facility's
2824 aerospace coating operations and cleaning operations on and after January

2825 1, 2021, if the source contains process emission units that, as a group,
2826 have a potential to emit less than 22.7 Mg (25 tons) of VOM per calendar
2827 year or have limited emissions to less than 22.7 Mg (25 tons) of VOM per
2828 calendar year through production or capacity limitations contained in a
2829 federally enforceable operating permit or SIP revision.

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2831 (Source: Amended at 45 Ill. Reg. _____, effective _____)
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2833 **Section 219.211 Recordkeeping and Reporting**
2834

2835 a) The VOM content of each coating and the efficiency of each capture system and
2836 control device ~~must~~ shall be determined by the applicable test methods and
2837 procedures specified in Section 219.105 of this Part to establish the records
2838 required under this Section.
2839

2840 b) Any owner or operator of a coating line that is exempt from the limitations of
2841 Section 219.204 of this Subpart because of Section 219.208(a) or (b) ~~must~~ of this
2842 Subpart shall comply with the following:
2843

2844 1) For sources exempt from Section 219.208(a) of this Subpart, by a date
2845 consistent with Section 219.106 of this Part, the owner or operator of a
2846 coating line or group of coating lines referenced in subsection (b) ~~must~~ of
2847 this Section shall certify to the Agency that the coating line or group of
2848 coating lines is exempt under the provisions of Section 219.208(a) of this
2849 Subpart. ~~The~~ Such certification ~~must~~ shall include:

2850
2851 A) A declaration that the coating line is exempt from the limitations of
2852 Section 219.204 of this Subpart because of Section 219.208(a) of
2853 this Subpart; and
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2855 B) Calculations that demonstrate that the combined VOM emissions
2856 from the coating line and all other coating lines in the same
2857 category never exceed 6.8 kg (15 lbs) per day before the
2858 application of capture systems and control devices. The following
2859 equation ~~must~~ shall be used to calculate total VOM emissions:
2860

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

2862
2863 where:
2864

- T_e = Total VOM emissions from coating lines each day before the application of capture systems and control devices in units of kg/day (lbs/day);
- m = Number of coating lines at the source that otherwise would be subject to the same subsection of Section 219.104 of this Part (because they belong to the same category, e.g., can coating);
- j = Subscript denoting an individual coating line;
- n = Number of different coatings as applied each day on each coating line;
- i = Subscript denoting an individual coating;
- A_i = Weight of VOM per volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line in units of kg VOM/l (lbs VOM/gal); and
- B_i = Volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line in units of l/day (gal/day). The instrument or method by which the owner or operator accurately measured or calculated the volume of each coating as applied on each coating line each day shall be described in the certification to the Agency.

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- 2) For sources exempt under Section 219.208(b) ~~of this Subpart~~, by March 15, 1998, or upon initial start-up, the owner or operator of a coating line or a group of coating lines referenced in subsection (b) ~~must of this Section~~ shall certify to the Agency that the source is exempt under the provisions of Section 219.208(b) ~~of this Subpart~~. The Such certification must shall include:
 - A) A declaration that the source is exempt from the limitations of Section 219.204(l) of this Subpart because of Section 219.208(b) ~~of this Subpart~~; and
 - B) Calculations that demonstrate that the source meets the criteria of exemption because of Section 219.208(b) ~~of this Subpart~~.

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- 3) For sources exempt under Section 219.208(a) ~~of this Subpart~~, on and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a coating line or group of lines referenced in this subsection (b) must~~shall~~ collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
 - A) The name and identification number of each coating as applied on each coating line; and
 - B) The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line.

- 4) For sources exempt under Section 219.208(b) ~~of this Subpart~~, on and after March 15, 1998, the owner or operator of a coating line or group of coating lines referenced in this subsection (b) must~~shall~~ collect and record all of the following information for each coating line and maintain the information at the source for a period of three years:
 - A) The name and identification number of each coating as applied on each coating line; and
 - B) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied on each coating line on a monthly basis.

- 5) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a coating line or group of coating lines exempted from the limitations of Section 219.204 ~~of this Subpart~~ because of Section 219.208(a) must~~of this Subpart shall~~ notify the Agency of any record showing that total VOM emissions from the coating line or group of coating lines exceed 6.8 kg (15 lbs) in any day before the application of capture systems and control devices by sending a copy of such record to the Agency within 30 days after the exceedance occurs.

- 6) On and after March 15, 1998, any owner or operator of a source exempt from the limitations of Section 219.204(1) ~~of this Subpart~~ because of Section 219.208(b) must~~of this Subpart shall~~ notify the Agency if the source's VOM emissions exceed the limitations of Section 219.208(b) ~~of~~

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~~this Subpart~~ by sending a copy of calculations showing such an exceedance within 30 days after the change occurs.

- c) Any owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ other than Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), ~~or (a)(2)(D), or (r) of this Subpart~~ and complying by means of Section 219.204 ~~must of this Subpart~~ shall comply with the following:
- 1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance from an existing subject coating line from Section 219.205, Section 219.207, Section 219.215, or Section 219.216 ~~of this Subpart~~ to Section 219.204 ~~of this Subpart~~; the owner or operator of a subject coating line ~~must~~ shall certify to the Agency that the coating line will be in compliance with Section 219.204 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification ~~must~~ shall include:
 - A) The name and identification number of each coating as applied on each coating line;
 - B) The weight of VOM per volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line;
 - C) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line;
 - D) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line;
 - E) For coating lines subject to the limitations of Section 219.204(g)(2) or (h)(2) ~~of this Subpart~~, the application methods used to apply coatings on the subject coating line and the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line;

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- F) For coating lines subject to the limitations of Section 219.204(o) of this Subpart, the weight of VOM per volume of coatings or solids, as applicable, for each coating as applied each day on each coating line;
 - G) For coating lines subject to the limitations of Section 219.204(a)(2)(A) of this Subpart, the weight of VOM per volume of solids in each coating as applied each day on each coating line, and the solids turnover ratio of the EDP operation, with supporting calculations;
 - H) For coating lines subject to the limitations of Section 219.204(a)(2)(E), the weight of VOM per volume and volume of each coating used in the final repair coat operation, and the weight of VOM per volume of the final repair coat as applied, calculated on an occurrence weighted average basis;
 - I) For coating lines subject to the limitations of Section 219.204(q) of this Subpart, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applicable, as applied each day on each coating line.
- 2) On and after a date consistent with Section 219.106 of this Part, or on and after the initial start-up date, the owner or operator of a subject coating line ~~must~~ shall collect and record all of the following information each day, unless otherwise specified, for each coating line and maintain the information at the source for a period of three years:
- A) The name and identification number of each coating as applied on each coating line;
 - B) The weight of VOM per volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) as applied each day on each coating line;
 - C) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) of this Subpart, the weight of VOM per weight of solids in each coating as applied each day on each coating line and certified product data sheets for each coating;
 - D) On and after March 15, 1998, for wood furniture coating spray booths subject to the limitation of Section 219.204(l)(4)(A) of this

- 3007 ~~Subpart~~, the weight of VOM per weight of solids in each strippable
3008 spray booth coating as applied each day on each spray booth and
3009 certified product data sheets for each coating;
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- 3011 E) For coating lines subject to the limitations of Section 219.204(c)(2)
3012 ~~of this Subpart~~, the weight of VOM per weight of solids (or the
3013 weight of VOM per weight of coatings, as applicable) in each
3014 coating as applied each day on each coating line, and certified
3015 product data sheets for each coating;
3016
- 3017 F) For coating lines subject to the limitations of Section 219.204(g)(2)
3018 or 219.204(h)(2) ~~of this Subpart~~, the weight of VOM per volume
3019 of each coating (or the weight of VOM per volume of solids in
3020 each coating, as applicable) as applied each day on each coating
3021 line, and certified product data sheets for each coating;
3022
- 3023 G) For coating lines subject to the limitations of Section 219.204(o) ~~of~~
3024 ~~this Subpart~~, the weight of VOM per volume of coatings or solids,
3025 as applicable, for each coating, as applied each day on each coating
3026 line;
3027
- 3028 H) For coating lines subject to the limitations of Section
3029 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume
3030 of solids in each coating as applied each day on each coating line,
3031 certified product data sheets for each coating, and the solid
3032 turnover ratio for the EDP operation, calculated on a calendar
3033 monthly basis, with supporting calculations;
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- 3035 I) For coating lines subject to the limitations of Section
3036 219.204(a)(2)(E), the weight of VOM per volume and volume of
3037 each coating used in the final repair coat operation, the weight of
3038 VOM per volume of the final repair coat as applied, calculated on
3039 an occurrence weighted average basis, and certified product data
3040 sheets for each coating;
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- 3042 J) For coating lines subject to the limitations of Section 219.204(q) ~~of~~
3043 ~~this Subpart~~, the weight of VOM per volume of each coating, or
3044 the weight of VOM per volume of solids in each coating, as
3045 applicable, as applied each day on each coating line, and certified
3046 product data sheets for each coating.
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- 3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line ~~must~~shall notify the Agency in the following instances:
- A) Any record showing violation of Section 219.204 ~~must~~of this Subpart shall be reported by sending a copy of ~~the such~~ record to the Agency within 30 days following the occurrence of the violation.
 - B) At least 30 calendar days before changing the method of compliance from Section 219.204 to Section 219.205 or Section 219.207 ~~of this Subpart~~, the owner or operator ~~must~~shall comply with all requirements of subsection (d)(1) or (e)(1), as applicable. Upon changing the method of compliance from Section 219.204 to Section 219.205 or Section 219.207 ~~of this Subpart~~, the owner or operator ~~must~~shall comply with all requirements of subsection (d) or (e) ~~of this Section~~, as applicable.
- d) Any owner or operator of a coating line subject to the limitations of Section 219.204 ~~of this Subpart~~ and complying by means of Section 219.205 ~~must~~of this Subpart shall comply with the following:
- 1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance for an existing subject coating line from Section 219.204 or Section 219.207 to Section 219.205 ~~of this Subpart~~; the owner or operator of the subject coating line ~~must~~shall certify to the Agency that the coating line will be in compliance with Section 219.205 on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification ~~must~~shall include:
 - A) The name and identification number of each coating line which will comply by means of Section 219.205 ~~of this Subpart~~.
 - B) The name and identification number of each coating as applied on each coating line.
 - C) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

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- D) On and after March 15, 1998, for coating lines subject to the limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the weight of VOM per weight of solids in each coating as applied each day on each coating line.
 - E) For coating lines subject to the limitations of Section 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume of solids in each coating as applied each day on each coating line.
 - F) For coating lines subject to the limitations of Section 219.204(c)(2) ~~of this Subpart~~, the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line.
 - G) For coating lines subject to the limitations of Section 219.204(g)(2) or (h)(2) ~~of this Subpart~~, the weight of VOM per volume of each coating (or the weight of VOM per volume of solids in each coating, as applicable) as applied each day on each coating line.
 - H) For coating lines subject to the limitations of Section 219.204(o) ~~of this Subpart~~, the weight of VOM per volume of coatings or solids, as applicable, for each coating, as applied each day on each coating line.
 - I) For coating lines subject to the limitations of Section 219.204(q) ~~of this Subpart~~, the weight of VOM per volume of each coating, or the weight of VOM per volume of solids in each coating, as applicable, as applied each day on each coating line.
 - J) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each coating line.
 - K) The method by which the owner or operator will create and maintain records each day as required in subsection (d)(2) ~~of this Section~~.
 - L) An example of the format in which the records required in subsection (d)(2) ~~of this Section~~ will be kept.
- 2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating line must ~~shall~~ collect and record all of the following information each day

3133 for each coating line and maintain the information at the source for a
3134 period of three years:

- 3135
- 3136 A) The name and identification number of each coating as applied on
3137 each coating line.
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- 3139 B) The weight of VOM per volume and the volume of each coating
3140 (minus water and any compounds that are specifically exempted
3141 from the definition of VOM) as applied each day on each coating
3142 line.
- 3143
- 3144 C) On and after March 15, 1998, for coating lines subject to the
3145 limitations of Section 219.204(l)(2)(A) or (B) ~~of this Subpart~~, the
3146 weight of VOM per weight of solids in each coating as applied
3147 each day on each coating line.
- 3148
- 3149 D) For coating lines subject to the limitations of Section
3150 219.204(a)(2)(A) ~~of this Subpart~~, the weight of VOM per volume
3151 of solids in each coating as applied each day on each coating line.
- 3152
- 3153 E) For coating lines subject to the limitations of Section 219.204(c)(2)
3154 ~~of this Subpart~~, the weight of VOM per weight of solids (or the
3155 weight of VOM per weight of coatings, as applicable) in each
3156 coating as applied each day on each coating line.
- 3157
- 3158 F) For coating lines subject to the limitations of Section 219.204(g)(2)
3159 or (h)(2) ~~of this Subpart~~, the weight of VOM per volume of each
3160 coating (or the weight of VOM per volume of solids in each
3161 coating, as applicable) as applied each day on each coating line.
- 3162
- 3163 G) For coating lines subject to the limitations of Section 219.204(o) ~~of~~
3164 ~~this Subpart~~, the weight of VOM per volume of coatings or solids,
3165 as applicable, for each coating, as applied each day on each coating
3166 line.
- 3167
- 3168 H) For coating lines subject to the limitations of Section 219.204(q) ~~of~~
3169 ~~this Subpart~~, the weight of VOM per volume of each coating, or
3170 the weight of VOM per volume of solids in each coating, as
3171 applicable, as applied each day on each coating line.
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- 3173 I) The daily-weighted average VOM content of all coatings as
3174 applied on each coating line as defined in Section 219.104 ~~of this~~
3175 ~~Part~~.

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- 3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line ~~must~~shall notify the Agency in the following instances:
 - A) Any record showing violation of Section 219.205 ~~must~~of this Subpart shall be reported by sending a copy of ~~the~~such record to the Agency within 30 days following the occurrence of the violation.
 - B) At least 30 calendar days before changing the method of compliance with this Subpart from Section 219.205 to Section 219.204 or Section 219.207 ~~of this Subpart~~, the owner or operator ~~must~~shall comply with all requirements of subsection (c)(1) or (e)(1) ~~of this Section~~, as applicable. Upon changing the method of compliance with this Subpart from Section 219.205 to Section 219.204 or Section 219.207 ~~of this Subpart~~, the owner or operator ~~must~~shall comply with all requirements of subsection (c) or (e) ~~of this Section~~, as applicable.
- e) Any owner or operator of a coating line subject to the limitations of Section 219.207 and complying by means of Section 219.207(c), (d), (e), (f), (g), (h), or (k), (l), (m), or (n) ~~must~~of this Subpart shall comply with the following:
 - 1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating line, or upon changing the method of compliance for an existing coating line from Section 219.204 or Section 219.205 to Section 219.207 ~~of this Subpart~~, the owner or operator of the subject coating line ~~must~~shall perform all tests and submit to the Agency the results of all tests and calculations necessary to demonstrate that the subject coating line will be in compliance with Section 219.207 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date.
 - 2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating line ~~must~~shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
 - A) The weight of VOM per volume of coating solids as applied each day on each coating line, if complying ~~with~~pursuant to Section 219.207(b)(2) ~~of this Subpart~~.

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- B) Control device monitoring data.
 - C) A log of operating time for the capture system, control device, monitoring equipment and the associated coating line.
 - D) A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- 3) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating line ~~must~~ shall notify the Agency in the following instances:
- A) Any record showing violation of Section 219.207 ~~must~~ shall be reported by sending a copy of ~~the~~ such record to the Agency within 30 days following the occurrence of the violation.
 - B) At least 30 calendar days before changing the method of compliance with this Subpart from Section 219.207 to Section 219.204 or Section 219.205 ~~of this Subpart~~, the owner or operator ~~must~~ shall comply with all requirements of subsection (c)(1) or (d)(1) ~~of this Section~~, respectively. Upon changing the method of compliance with this Subpart from Section 219.207 to Section 219.204 or Section 219.205 ~~of this Subpart~~, the owner or operator ~~must~~ shall comply with all requirements of subsection (c) or (d) ~~of this Section~~, respectively.
- f) Any owner or operator of a primer surfacer operation or topcoat operation, or combined primer surfacer and topcoat operation, subject to the limitations of Section 219.204(a)(1)(B), (a)(1)(B), (a)(2)(C), or (a)(2)(D) ~~must~~ shall comply with the following:
- 1) By a date consistent with Section 219.106 ~~of this Part~~, or upon initial start-up of a new coating operation, the owner or operator of a subject coating operation ~~must~~ shall certify to the Agency that the operation will be in compliance with Section 219.204 ~~of this Subpart~~ on and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date. The certification ~~must~~ shall include:

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- A) The name and identification number of each coating operation that will comply by means of Section 219.204(a)(1)(B),(a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) ~~of this Subpart~~ and the name and identification number of each coating line in each coating operation.
 - B) The name and identification number of each coating as applied on each coating line in the coating operation.
 - C) The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.
 - D) The transfer efficiency and control efficiency measured for each coating line.
 - E) Test reports, including raw data and calculations documenting the testing performed to measure transfer efficiency and control efficiency.
 - F) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each coating line.
 - G) The method by which the owner or operator will create and maintain records each day as required in subsection (f)(2) ~~of this Section~~.
 - H) An example format for presenting the records required in subsection (f)(2) ~~of this Section~~.
- 2) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, the owner or operator of a subject coating operation must ~~shall~~ collect and record all of the following information each day for each topcoat or primer surfacer coating operation and maintain the information at the source for a period of three years:
- A) All information necessary to demonstrate compliance with the topcoat protocol referenced in Section 219.105(b)(1)(B) and to calculate the daily-weighted average VOM emissions from the coating operations in kg/l (lbs/gal) of coating solids deposited in accordance with the proposal submitted, and approved

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~~underpursuant to Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) of this Subpart~~ including:

- i) The name and identification number of each coating as applied on each coating operation.
 - ii) The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating operation.
- B) If a control device or devices are used to control VOM emissions, control device monitoring data; a log of operating time for the capture system, control device, monitoring equipment and the associated coating operation; and a maintenance log for the capture system, control device and monitoring equipment, detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- 3) On and after a date consistent with Section 219.106 ~~of this Part~~ or on and after the initial start-up date, the owner or operator of a subject coating operation mustshall determine and record the daily VOM emissions in kg/l (lbs/gal) of coating solids deposited in accordance with the proposal submitted and approved ~~underpursuant to Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) of this Subpart~~ within 10 days from the end of the month and maintain this information at the source for a period of three years.
- 4) On and after a date consistent with Section 219.106 ~~of this Part~~, the owner or operator of a subject coating operation mustshall notify the Agency in the following instances:
- A) Any record showing a violation of Section 219.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) mustof this Subpart shall be reported by sending a copy of ~~thesueh~~ record to the Agency within 15 days from the end of the month in which the violation occurred.
 - B) The owner or operator mustshall notify the Agency of any change to the operation at least 30 days before the change is effected. The Agency mustshall determine whether or not compliance testing is required. If the Agency determines that compliance testing is required, then the owner or operator mustshall submit a testing

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proposal to the Agency within 30 days and test within 30 days after the approval of the proposal by the Agency and USEPA.

- g) On and after a date consistent with Section 219.106(c) ~~of this Part~~, or on and after the initial start-up date, whichever is later, the owner or operator of a coating line subject to the requirements of Section 219.218 ~~must of this Subpart~~ shall comply with the following:
 - 1) By May 1, 2011, or upon initial start-up, whichever is later, submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Section 219.218 ~~of this Subpart~~;
 - 2) Notify the Agency of any violation of Section 219.218 ~~of this Subpart~~ by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation; and
 - 3) Maintain at the source all records required by this subsection (g) for a minimum of three years from the date the document was created and make those records available to the Agency upon request.

- h) On and after a date consistent with Section 219.106 ~~of this Part~~, or on and after the initial start-up date, whichever is later, the owner or operator of a coating line subject to the requirements of Section 219.219, except aerospace facilities, must of this Subpart shall comply with the following:
 - 1) By May 1, 2012, or upon initial start-up, whichever is later, submit a certification to the Agency that includes:
 - A) A description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements in Section 219.219 ~~of this Subpart~~;
 - B) For sources subject to Section 219.219(a)(6), the work practices plan specified in that Section;
 - C) For sources subject to Section 219.219(b)(6), the application methods used to apply coatings on the subject coating line;
 - 2) Notify the Agency of any violation of Section 219.219 ~~of this Subpart~~ by providing a description of the violation and copies of records documenting

- 3388 the violation to the Agency within 30 days following the occurrence of the
3389 violation; and
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3391 3) Maintain at the source all records required by this subsection (h) for a
3392 minimum of three years from the date the document was created and make
3393 those records available to the Agency upon request.
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3395 i) On and after a date consistent with Section 219.106(d) ~~of this Part~~, or on and after
3396 the initial start-up date, whichever is later, the owner or operator of a flat wood
3397 paneling coating line subject to the requirements in Section 219.217 must ~~of this~~
3398 ~~Subpart shall~~ comply with the following:
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3400 1) By August 1, 2010, or upon initial start-up, whichever is later, submit a
3401 certification to the Agency that includes a description of the practices and
3402 procedures that the source will follow to ensure compliance with the
3403 applicable requirements in Section 219.217(c) and (d) ~~of this Subpart~~; and
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3405 2) Notify the Agency of any violation of Section 219.217 ~~of this Subpart~~ by
3406 providing a description of the violation and copies of records documenting
3407 such violation to the Agency within 30 days following the occurrence of
3408 the violation.
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3410 j) On and after January 1, 2021, the owner or operator of an aerospace facility
3411 subject to the requirements of this Subpart under Section 219.208(f)(1) must
3412 comply with the following:
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3414 1) Each owner or operator using coatings listed in Section 219.204(r) must:
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3416 A) Maintain a current list of coatings in use, with category and VOM
3417 content as applied; and
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3419 B) Record coating usage on an annual basis.
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3421 2) Each owner or operator using touch-up coatings that do not meet the
3422 limitations of Section 219.204(r)(2) must:
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3424 A) Collect and record the name, identification number, and volume
3425 used of each touch-up coating that does not meet the limitations of
3426 Section 219.204(r)(2), as applied in each aerospace coating
3427 operation, per 24-hour period and per month;
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3429 B) Perform calculations on a daily basis, and maintain at the source
3430 records of those calculations, of the combined volume of touch-up

- 3431 coatings that do not meet the limitations of Section 219.204(r)(2)
3432 used source-wide for each 24-hour period;
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3434 C) Perform calculations on a monthly basis, and maintain at the
3435 source records of those calculations, of the combined volume of
3436 touch-up coatings that do not meet the limitations of Section
3437 219.204(r)(2) used source-wide for the month and the rolling 12-
3438 month period;
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3440 D) Prepare and maintain at the source an annual summary of the
3441 information required to be compiled under subsections (j)(2)(A),
3442 (j)(2)(B), and (j)(2)(C) on or before January 31 of the following
3443 year;
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3445 E) Maintain at the source for a minimum period of three years all
3446 records required to be kept under this subsection (j)(2) and make
3447 those records available to the Agency upon request; and
3448
3449 F) Notify the Agency in writing, within 30 days after any exceedance,
3450 if the combined use of touch-up coatings that do not meet the
3451 limitations of Section 219.204(r)(2) at the source ever exceeds a
3452 volume of 2.85 l (3 quarts) per 24-hour period or exceeds 209 l/yr
3453 (55 gal/yr) for any rolling 12-month period. The notification must
3454 include a copy of any records of the exceedance.
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3456 3) Each owner or operator using cleaning solvents required by Section
3457 219.219(e) or (g) must:
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3459 A) For aqueous and semiaqueous hand-wipe cleaning solvents,
3460 maintain a list of materials used, with corresponding water
3461 contents;
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3463 B) For vapor pressure compliant hand-wipe cleaning solvents:
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3465 i) Maintain a current list of cleaning solvents in use with their
3466 respective vapor pressures or, for blended solvents, VOM
3467 composite vapor pressures; and
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3469 ii) Record cleaning solvent usage on an annual basis; and
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3471 C) For cleaning solvents with a vapor pressure greater than 45 mmHg
3472 used in exempt hand-wipe cleaning operations:
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- i) Maintain a list of exempt hand-wipe cleaning processes; and
 - ii) Record cleaning solvent usage on an annual basis.
- 4) Each owner or operator using control equipment under Section 219.207(n) must meet all applicable testing, monitoring, and recordkeeping requirements of Section 219.105(c), (d), and (e).
- 5) By January 1, 2021, or upon initial start-up, whichever is later, the owner or operator of an aerospace facility must submit a certification to the Agency that includes a description of the practices and procedures that the source will follow to ensure compliance with the applicable requirements of Section 219.219(e) and (g).
- 6) Each owner and operator of an aerospace facility must notify the Agency of any violation of this Part by providing a description of the violation and copies of records documenting the violation to the Agency within 30 days following the occurrence of the violation.
- k) Exempt Aerospace Facilities
 - 1) For aerospace facilities that are exempt under Section 219.208(f)(1), by January 1, 2021, or upon initial start-up, the owner or operator of an aerospace facility must certify to the Agency that the source is exempt under that subsection. The certification must include:
 - A) A declaration that the source is exempt under Section 219.208(f)(1); and
 - B) Calculations that demonstrate that the source meets the criteria for exemption.
 - 2) For sources exempt under Section 219.208(f)(1), on and after January 1, 2021, the owner or operator of an aerospace facility must collect and record all of the following information for each aerospace coating operation and cleaning operation, as applicable, and maintain the information at the source for a period of three years. The owner or operator must, upon request by the Agency or USEPA, submit the information to the Agency and USEPA within 30 calendar days from the date of the request, along with any other documentation necessary to demonstrate that the aerospace facility is exempt from the requirements of this Subpart:

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A) The name and identification number of each coating applied and cleaning solvent used; and

B) The weight of VOM per volume and the volume of each coating (minus water and any compounds that are specifically exempted from the definition of VOM) applied and cleaning solvent used on a monthly basis.

3) On and after January 1, 2021, any owner or operator of an aerospace facility exempt under Section 219.208(f)(1) must notify the Agency if the source's VOM emissions exceed the criteria in Section 219.208(f)(1) by sending a copy of calculations showing the exceedance within 30 days after the exceedance occurs.

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

Section 219.219 Work Practice Standards for Aerospace Facilities, Automobile and Light-Duty Truck Assembly Coatings, and Miscellaneous Metal and Plastic Parts Coatings

a) Every owner or operator of a coating line subject to the requirements of Section 219.204(a)(2) ~~must of this Subpart shall:~~

1) Store all VOM-containing coatings, thinners, coating-related waste materials, cleaning materials, and used shop towels in closed containers;

2) Ensure that mixing and storage containers used for VOM-containing coatings, thinners, and coating-related waste materials are kept closed at all times except when depositing or removing those materials;

3) Minimize spills of VOM-containing coatings, thinners, and coating-related waste materials;

4) Convey VOM-containing coatings, thinners, and coating-related waste materials from one location to another in closed containers or pipes;

5) Minimize VOM emissions from cleaning of storage, mixing, and conveying equipment;

6) Develop and implement a work practice plan to minimize VOM emissions from cleaning and from purging of equipment associated with coating lines subject to the limitations in Section 219.204(a)(2). The plan ~~must shall~~ specify practices and procedures that the source will follow to

3560 ensure that VOM emissions from the operations listed in this subsection
3561 (a)(6) are minimized. If the owner or operator of the subject coating line
3562 has already implemented a work practice plan for the coating line
3563 ~~underpursuant to~~ Subpart IIII of 40 CFR 63, incorporated by reference in
3564 Section 219.112 ~~of this Part~~, the owner or operator may revise the plan as
3565 necessary to comply with this Section.
3566

- 3567 A) Vehicle body wiping;
- 3568
- 3569 B) Coating line purging;
- 3570
- 3571 C) Flushing of coating systems;
- 3572
- 3573 D) Cleaning of spray booth grates, walls, and equipment; and
- 3574
- 3575 F) Cleaning of external spray booth areas.
- 3576

3577 b) Except as provided in subsection (c) ~~of this Section~~, every owner or operator of a
3578 coating line described in Section 219.204(q) ~~must of this Subpart~~ shall:

- 3579
- 3580 1) Store all VOM-containing coatings, thinners, coating-related waste
3581 materials, cleaning materials, and used shop towels in closed containers;
- 3582
- 3583 2) Ensure that mixing and storage containers used for VOM-containing
3584 coatings, thinners, coating-related waste materials, and cleaning materials
3585 are kept closed at all times except when depositing or removing these
3586 materials;
- 3587
- 3588 3) Minimize spills of VOM-containing coatings, thinners, coating-related
3589 waste materials, and cleaning materials;
- 3590
- 3591 4) Convey VOM-containing coatings, thinners, coating-related waste
3592 materials, and cleaning materials from one location to another in closed
3593 containers or pipes;
- 3594
- 3595 5) Minimize VOC emissions from cleaning of application, storage, mixing,
3596 and conveying equipment by ensuring that equipment cleaning is
3597 performed without atomizing the cleaning solvent and all spent solvent is
3598 captured in closed containers; and
- 3599
- 3600 6) Apply all coatings using one or more of the following application
3601 methods:
- 3602

- 3603 A) Electrostatic spray;
- 3604
- 3605 B) High volume low pressure (HVLP) spray;
- 3606
- 3607 C) Flow coating. For the purposes of this subsection (b)(6)(C), flow
- 3608 coating means a non-atomized technique of applying coating to a
- 3609 substrate with a fluid nozzle with no air supplied to the nozzle;
- 3610
- 3611 D) Roll coating;
- 3612
- 3613 E) Dip coating, including electrodeposition. For purposes of this
- 3614 subsection (b)(6)(E), electrodeposition means a water-borne dip
- 3615 coating process in which opposite electrical charges are applied to
- 3616 the substrate and the coating. The coating is attracted to the
- 3617 substrate due to the electrochemical potential difference that is
- 3618 created;
- 3619
- 3620 F) Airless spray;
- 3621
- 3622 G) Air-assisted airless spray; or
- 3623
- 3624 H) Another coating application method capable of achieving a transfer
- 3625 efficiency equal to or better than that achieved by HVLP spraying,
- 3626 if the method is approved in writing by the Agency.
- 3627
- 3628 c) Notwithstanding subsection (b) ~~of this Section~~, the application method limitations
- 3629 in subsection (b)(6) ~~do shall~~ not apply to the following:
- 3630
- 3631 1) Coating lines complying with Section 219.207(m)(1);
- 3632
- 3633 2) For metal parts and products coating operations: touch-up coatings, repair
- 3634 coatings, textured finishes, stencil coatings, safety-indicating coatings,
- 3635 solid-film lubricants, electric-insulating and thermal-conducting coatings,
- 3636 magnetic data storage disk coatings, and plastic extruded onto metal parts
- 3637 to form a coating;
- 3638
- 3639 3) For pleasure craft surface coating operations: extreme high gloss coatings;
- 3640
- 3641 4) For plastic parts and products coating operations: airbrush operations
- 3642 using 18.9 liters (5 gallons) or less of coating per year.
- 3643
- 3644 5) For ammunition sealant operations: cap sealants and mouth waterproofing
- 3645 sealants.

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- d) Subsections (e) and (g) do not apply to the following activities in which cleaning of aerospace components and vehicles may take place: research and development, quality control, laboratory testing, and cleaning of electronic parts and assemblies (except for cleaning of completed assemblies). Subsections (e) and (g) also do not apply to aerospace facility operations involving space vehicles or rework operations performed on antique aerospace vehicles or components. Subsections (e) and (g) also do not apply to aqueous cleaning solvents.

- e) Except as provided in subsections (d) and (f), every owner or operator of an aerospace facility must:
 - 1) Ensure that all fresh and used cleaning solvents, except semi-aqueous cleaning solvents, used in solvent cleaning operations are stored in containers that must be kept closed at all times except when filling or emptying;
 - 2) Ensure that mixing and storage containers used for VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials are kept closed at all times except when depositing or removing these materials;
 - 3) Ensure that cloth and paper, or other absorbent applicators, moistened with cleaning solvents are stored in closed containers (cotton-tipped swabs used for very small cleaning operations are exempt);
 - 4) Minimize spills of VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials;
 - 5) Convey VOM-containing coatings, thinners, coating-related waste materials, and cleaning materials from one location to another in closed containers or pipes;
 - 6) Minimize VOM emissions from cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers; and
 - 7) Apply all coatings using one or more of the following application methods:
 - A) Electrostatic spray;

- 3689 B) High volume low pressure (HVLP) spray;
- 3690
- 3691 C) Flow coating. For the purposes of this subsection (e)(7)(C), flow
- 3692 coating means a non-atomized technique of applying coating to a
- 3693 substrate with a fluid nozzle with no air supplied to the nozzle;
- 3694
- 3695 D) Roll coating;
- 3696
- 3697 E) Dip coating, including electrodeposition. For purposes of this
- 3698 subsection (e)(7)(E), electrodeposition means a water-borne dip
- 3699 coating process in which opposite electrical charges are applied to
- 3700 the substrate and the coating. The coating is attracted to the
- 3701 substrate due to the electrochemical potential difference that is
- 3702 created;
- 3703
- 3704 F) Brush coating;
- 3705
- 3706 G) Cotton-tipped swab application; or
- 3707
- 3708 H) Another coating application method capable of achieving a transfer
- 3709 efficiency equal to or better than that achieved by HVLP spraying,
- 3710 if the method is approved in writing by the Agency.
- 3711
- 3712 f) The application method limitations in subsection (e)(7) do not apply to the
- 3713 following:
- 3714
- 3715 1) Any situation that normally requires the use of an airbrush or an extension
- 3716 on the spray gun to properly reach limited access spaces;
- 3717
- 3718 2) The application of aerospace specialty coatings;
- 3719
- 3720 3) The application of coatings that contain fillers that adversely affect
- 3721 atomization with HVLP spray guns and that the Agency has determined
- 3722 cannot be applied by any of the application methods specified in
- 3723 subsection (e)(7);
- 3724
- 3725 4) The application of coatings that normally have a dried film thickness of
- 3726 less than 0.0013 centimeter (0.0005 inch) and that the Agency has
- 3727 determined cannot be applied by any of the application methods specified
- 3728 in subsection (e)(7);
- 3729
- 3730 5) The use of airbrush application methods for stenciling, lettering, and other
- 3731 identification markings;

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- 6) The use of hand-held spray can application methods; and
- 7) Application of touch-up and repair coatings.
- g) Cleaning Operations at Aerospace Facilities
 - 1) Hand-wipe Cleaning at Aerospace Facilities. Hand-wipe cleaning (excluding cleaning of spray gun equipment performed in accordance with subsection (g)(3)) must use cleaning solvents that meet the definition of aqueous cleaning solvent or have a composite vapor pressure of 45 mmHg (24.1 in. H₂O) or less at 20°C (68°F).
 - 2) The following cleaning operations are exempt from the requirements of subsection (g)(1):
 - A) Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;
 - B) Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, hydrazine);
 - C) Cleaning and surface activation prior to adhesive bonding;
 - D) Cleaning of electronics parts and assemblies containing electronics parts;
 - E) Cleaning of aircraft fluid systems and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;
 - F) Cleaning of fuel cells, fuel tanks, and confined spaces;
 - G) Surface cleaning of solar cells, coated optics, and thermal control surfaces;
 - H) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used on the interior of the aircraft;

- 3775 I) Cleaning of metallic and nonmetallic materials used in honeycomb
3776 cores during the manufacture or maintenance of these cores, and
3777 cleaning of the completed cores used in the manufacture of
3778 aerospace vehicles or components;
3779
- 3780 J) Cleaning of aircraft transparencies, polycarbonate, or glass
3781 substrates;
3782
- 3783 K) Cleaning and solvent usage associated with research and
3784 development, quality control, or laboratory testing;
3785
- 3786 L) Cleaning operations, using nonflammable liquids, conducted
3787 within 5 feet of energized electrical systems. Energized electrical
3788 systems means any AC or DC electrical circuit on an assembled
3789 aircraft once electrical power is connected, including interior
3790 passenger and cargo areas, wheel wells and tail sections; and
3791
- 3792 M) Cleaning operations identified as essential uses under the Montreal
3793 Protocol for which the USEPA Administrator has allocated
3794 essential use allowances or exemptions in 40 CFR 82.4.
3795
- 3796 3) Spray Gun Cleaning at Aerospace Facilities. Spray gun cleaning, in which
3797 spray guns are used for the application of coatings or any other materials
3798 that require the spray guns to be cleaned, must be cleaned by one or more
3799 of the following methods:
3800
- 3801 A) Enclosed System
3802
- 3803 i) Clean the spray gun in an enclosed system that is closed at
3804 all times except when inserting or removing the spray gun.
3805 Cleaning must consist of forcing solvent through the gun.
3806
- 3807 ii) Each owner or operator using an enclosed spray gun
3808 cleaner must visually inspect the seals and all other
3809 potential sources of leaks at least once per month. Each
3810 inspection must occur while the spray gun cleaner is in
3811 operation. If leaks are found in the enclosed system, the
3812 enclosed cleaner must be shut down until the leak is
3813 repaired or its use is permanently discontinued.
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- 3815 B) Nonatomized cleaning. Clean the spray gun by placing cleaning
3816 solvent in the pressure pot and forcing it through the gun with the
3817 atomizing cap in place. Atomizing air must not be used. Direct

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the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use.

C) Disassembled spray gun cleaning. Disassemble the spray gun and clean the components by hand in a vat, which must remain closed at all times except when in use. Alternatively, soak the components in a vat, which must remain closed during the soaking period and when not inserting or removing components.

D) Atomizing cleaning. Clean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.

4) Flush Cleaning at Aerospace Facilities. For cleaning solvents used in flush cleaning of parts, assemblies, and coating line components, the used cleaning solvent (except for semiaqueous cleaning solvents) must be emptied into an enclosed container or collection system that is kept closed when not in use or captured with wipers, provided they comply with the housekeeping requirements of subsections (e)(1) through (3). Aqueous cleaning solvents are exempt from these requirements.

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