POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

R13-18

1) Heading of the Part: Organic Material Emission Standards and Limitations for the Metro East Area

2) Code Citation: 35 Ill. Adm. Code 219

3)

Section Numbers:	Proposed Action:
219.105	Amend
219.112	Amend
219.583	Amend

4) Statutory Authority: Implementing Section 10 of the Environmental Protection Act [415 ILCS 5/10] and authorized by Sections 27 and 28 of the Environmental Protection Act [415 ILCS 5/27, 28]

5) A Complete Description of the Subjects and Issues Involved: This proposal repeals, as a matter of clean-up, State II vapor recovery test methods and a Stage II vapor recovery guidance document because the Stage II vapor recovery rule/program in the Metro-East nonattainment area was repealed in 1994. In addition, this proposal repeals the Stage I vapor recovery registration provision (35 Ill. Adm. Code 219.583(e)) due to overlapping federal notification requirements and other State tracking systems for gasoline dispensing operations. The available permit exemption (currently conditioned upon registration) provided by this Stage I registration provision will be relocated to 35 Ill. Adm. Code 201 and will not require registration.

6) Published studies or reports, and sources of underlying data, used to compose this rulemaking:

Clean Air Act (42 USC 7401 *et seq.*)

40 CFR 63, Subpart CCCCCC (2012)

7) Will this proposed rulemaking replace any emergency rule currently in effect? No

8) Does this rulemaking contain an automatic repeal date? No

9) Does this proposed rulemaking contain incorporations by reference? Yes

10) Are there any other proposed amendments pending on this Part? No

11) Statement of Statewide Policy Objectives: This proposed rulemaking does not create or

enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act. [30 ILCS 805/3(b)].

12) Time, Place, and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comments on this proposal for a period of at least 45 days after the date of publication in the *Illinois Register*. Public comments must be filed with the Clerk of the Board. Public comments may be filed at the following address:

John Therriault, Assistant Clerk
Pollution Control Board
JRTC
100 W. Randolph Street, Suite 11-500
Chicago, IL 60601
312/819-3620

Public comments may also be filed electronically through the Clerk's Office On-Line (COOL) on the Board's Web site at www.ipcb.state.il.us.

In addition, two public hearings will be held. The first hearing will take place in Springfield on May 8, 2013. The second hearing will take place in Chicago on June 5, 2013.

13) Initial Regulatory Flexibility Analysis:

A) Types of small businesses, small municipalities and not for profit corporations affected: Any small business, small municipality, or not for profit corporation engaged in storage tank filling at gasoline dispensing operations located in the Metro-East nonattainment area.

B) Reporting, bookkeeping or other procedures required for compliance: This proposal repeals the Stage I registration provision.

C) Types of professional skills necessary for compliance: None.

14) Regulatory Agenda on which this rulemaking was summarized: January 2013

The full text of the Proposed Amendments begins on the next page:

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

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

SUBPART A: GENERAL PROVISIONS

Section

219.100 Introduction
219.101 Savings Clause
219.102 Abbreviations and Conversion Factors
219.103 Applicability
219.104 Definitions
219.105 Test Methods and Procedures
219.106 Compliance Dates
219.107 Operation of Afterburners
219.108 Exemptions, Variations, and Alternative Means of Control or Compliance Determinations
219.109 Vapor Pressure of Volatile Organic Liquids
219.110 Vapor Pressure of Organic Material or Solvent
219.111 Vapor Pressure of Volatile Organic Material
219.112 Incorporations by Reference
219.113 Monitoring for Negligibly-Reactive Compounds

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section

219.119 Applicability for VOL
219.120 Control Requirements for Storage Containers of VOL
219.121 Storage Containers of VPL
219.122 Loading Operations
219.123 Petroleum Liquid Storage Tanks
219.124 External Floating Roofs
219.125 Compliance Dates
219.126 Compliance Plan (Repealed)
219.127 Testing VOL Operations
219.128 Monitoring VOL Operations
219.129 Recordkeeping and Reporting for VOL Operations

SUBPART C: ORGANIC EMISSIONS FROM MISCELLANEOUS EQUIPMENT

Section	
219.141	Separation Operations
219.142	Pumps and Compressors
219.143	Vapor Blowdown
219.144	Safety Relief Valves

SUBPART E: SOLVENT CLEANING

Section	
219.181	Solvent Cleaning Degreasing Operations
219.182	Cold Cleaning
219.183	Open Top Vapor Degreasing
219.184	Conveyorized Degreasing
219.185	Compliance Schedule (Repealed)
219.186	Test Methods
219.187	Other Industrial Solvent Cleaning Operations

SUBPART F: COATING OPERATIONS

Section	
219.204	Emission Limitations
219.205	Daily-Weighted Average Limitations
219.206	Solids Basis Calculation
219.207	Alternative Emission Limitations
219.208	Exemptions From Emission Limitations
219.209	Exemption From General Rule on Use of Organic Material
219.210	Compliance Schedule
219.211	Recordkeeping and Reporting
219.212	Cross-Line Averaging to Establish Compliance for Coating Lines
219.213	Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines
219.214	Changing Compliance Methods
219.215	Wood Furniture Coating Averaging Approach
219.216	Wood Furniture Coating Add-On Control Use
219.217	Wood Furniture Coating and Flat Wood Paneling Coating Work Practice Standards
219.218	Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings
219.219	Work Practice Standards for Automobile and Light-Duty Truck Assembly Coatings and Miscellaneous Metal and Plastic Parts Coatings

SUBPART G: USE OF ORGANIC MATERIAL

Section	
219.301	Use of Organic Material
219.302	Alternative Standard
219.303	Fuel Combustion Emission Units
219.304	Operations with Compliance Program

SUBPART H: PRINTING AND PUBLISHING

Section	
219.401	Flexographic and Rotogravure Printing
219.402	Applicability
219.403	Compliance Schedule
219.404	Recordkeeping and Reporting
219.405	Lithographic Printing: Applicability
219.406	Provisions Applying to Heatset Web Offset Lithographic Printing Prior to March 15, 1996 (Repealed)
219.407	Emission Limitations and Control Requirements for Lithographic Printing Lines
219.408	Compliance Schedule for Lithographic Printing On and After March 15, 1996 (Repealed)
219.409	Testing for Lithographic Printing
219.410	Monitoring Requirements for Lithographic Printing
219.411	Recordkeeping and Reporting for Lithographic Printing
219.412	Letterpress Printing Lines: Applicability
219.413	Emission Limitations and Control Requirements for Letterpress Printing Lines
219.415	Testing for Letterpress Printing Lines
219.416	Monitoring Requirements for Letterpress Printing Lines
219.417	Recordkeeping and Reporting for Letterpress Printing Lines

SUBPART Q: SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING PLANT

Section	
219.421	General Requirements
219.422	Inspection Program Plan for Leaks
219.423	Inspection Program for Leaks
219.424	Repairing Leaks
219.425	Recordkeeping for Leaks
219.426	Report for Leaks
219.427	Alternative Program for Leaks
219.428	Open-Ended Valves

219.429	Standards for Control Devices
219.430	Compliance Date (Repealed)
219.431	Applicability
219.432	Control Requirements
219.433	Performance and Testing Requirements
219.434	Monitoring Requirements
219.435	Recordkeeping and Reporting Requirements
219.436	Compliance Date

SUBPART R: PETROLEUM REFINING AND RELATED INDUSTRIES; ASPHALT MATERIALS

Section	
219.441	Petroleum Refinery Waste Gas Disposal
219.442	Vacuum Producing Systems
219.443	Wastewater (Oil/Water) Separator
219.444	Process Unit Turnarounds
219.445	Leaks: General Requirements
219.446	Monitoring Program Plan for Leaks
219.447	Monitoring Program for Leaks
219.448	Recordkeeping for Leaks
219.449	Reporting for Leaks
219.450	Alternative Program for Leaks
219.451	Sealing Device Requirements
219.452	Compliance Schedule for Leaks
219.453	Compliance Dates (Repealed)

SUBPART S: RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

Section	
219.461	Manufacture of Pneumatic Rubber Tires
219.462	Green Tire Spraying Operations
219.463	Alternative Emission Reduction Systems
219.464	Emission Testing
219.465	Compliance Dates (Repealed)
219.466	Compliance Plan (Repealed)

SUBPART T: PHARMACEUTICAL MANUFACTURING

Section	
219.480	Applicability
219.481	Control of Reactors, Distillation Units, Crystallizers, Centrifuges and Vacuum Dryers

219.482	Control of Air Dryers, Production Equipment Exhaust Systems and Filters
219.483	Material Storage and Transfer
219.484	In-Process Tanks
219.485	Leaks
219.486	Other Emission Units
219.487	Testing
219.488	Monitoring for Air Pollution Control Equipment
219.489	Recordkeeping for Air Pollution Control Equipment

SUBPART V: BATCH OPERATIONS AND AIR OXIDATION PROCESSES

Section	
219.500	Applicability for Batch Operations
219.501	Control Requirements for Batch Operations
219.502	Determination of Uncontrolled Total Annual Mass Emissions and Actual Weighted Average Flow Rate Values for Batch Operations
219.503	Performance and Testing Requirements for Batch Operations
219.504	Monitoring Requirements for Batch Operations
219.505	Reporting and Recordkeeping for Batch Operations
219.506	Compliance Date
219.520	Emission Limitations for Air Oxidation Processes
219.521	Definitions (Repealed)
219.522	Savings Clause
219.523	Compliance
219.524	Determination of Applicability
219.525	Emission Limitations for Air Oxidation Processes (Renumbered)
219.526	Testing and Monitoring
219.527	Compliance Date (Repealed)

SUBPART W: AGRICULTURE

Section	
219.541	Pesticide Exception

SUBPART X: CONSTRUCTION

Section	
219.561	Architectural Coatings
219.562	Paving Operations
219.563	Cutback Asphalt

SUBPART Y: GASOLINE DISTRIBUTION

Section	
219.581	Bulk Gasoline Plants
219.582	Bulk Gasoline Terminals
219.583	Gasoline Dispensing Operations – Storage Tank Filling Operations
219.584	Gasoline Delivery Vessels
219.585	Gasoline Volatility Standards (Repealed)
219.586	Gasoline Dispensing Operations – Motor Vehicle Fueling Operations (Repealed)

SUBPART Z: DRY CLEANERS

Section	
219.601	Perchloroethylene Dry Cleaners (Repealed)
219.602	Exemptions (Repealed)
219.603	Leaks (Repealed)
219.604	Compliance Dates (Repealed)
219.605	Compliance Plan (Repealed)
219.606	Exception to Compliance Plan (Repealed)
219.607	Standards for Petroleum Solvent Dry Cleaners
219.608	Operating Practices for Petroleum Solvent Dry Cleaners
219.609	Program for Inspection and Repair of Leaks
219.610	Testing and Monitoring
219.611	Exemption for Petroleum Solvent Dry Cleaners
219.612	Compliance Dates (Repealed)
219.613	Compliance Plan (Repealed)

SUBPART AA: PAINT AND INK MANUFACTURING

Section	
219.620	Applicability
219.621	Exemption for Waterbase Material and Heatset-Offset Ink
219.623	Permit Conditions
219.624	Open-Top Mills, Tanks, Vats or Vessels
219.625	Grinding Mills
219.626	Storage Tanks
219.628	Leaks
219.630	Clean Up
219.636	Compliance Schedule
219.637	Recordkeeping and Reporting

SUBPART BB: POLYSTYRENE PLANTS

Section	
219.640	Applicability

259	219.642	Emissions Limitation at Polystyrene Plants
260	219.644	Emissions Testing
261		
262		SUBPART FF: BAKERY OVENS
263		
264	Section	
265	219.720	Applicability (Repealed)
266	219.722	Control Requirements (Repealed)
267	219.726	Testing (Repealed)
268	219.727	Monitoring (Repealed)
269	219.728	Recordkeeping and Reporting (Repealed)
270	219.729	Compliance Date (Repealed)
271	219.730	Certification (Repealed)
272		
273		SUBPART GG: MARINE TERMINALS
274		
275	Section	
276	219.760	Applicability
277	219.762	Control Requirements
278	219.764	Compliance Certification
279	219.766	Leaks
280	219.768	Testing and Monitoring
281	219.770	Recordkeeping and Reporting
282		
283		SUBPART HH: MOTOR VEHICLE REFINISHING
284		
285	Section	
286	219.780	Emission Limitations
287	219.782	Alternative Control Requirements
288	219.784	Equipment Specifications
289	219.786	Surface Preparation Materials
290	219.787	Work Practices
291	219.788	Testing
292	219.789	Monitoring and Recordkeeping for Control Devices
293	219.790	General Recordkeeping and Reporting (Repealed)
294	219.791	Compliance Date
295	219.792	Registration (Repealed)
296	219.875	Applicability of Subpart BB (Renumbered)
297	219.877	Emissions Limitation at Polystyrene Plants (Renumbered)
298	219.879	Compliance Date (Repealed)
299	219.881	Compliance Plan (Repealed)
300	219.883	Special Requirements for Compliance Plan (Repealed)
301	219.886	Emissions Testing (Renumbered)

SUBPART II: FIBERGLASS BOAT MANUFACTURING MATERIALS

Section	
219.890	Applicability
219.891	Emission Limitations and Control Requirements
219.892	Testing and Monitoring Requirements
219.894	Recordkeeping and Reporting Requirements

SUBPART JJ: MISCELLANEOUS INDUSTRIAL ADHESIVES

Section	
219.900	Applicability
219.901	Emission Limitations and Control Requirements
219.902	Testing Requirements
219.903	Monitoring Requirements
219.904	Recordkeeping and Reporting Requirements

SUBPART PP: MISCELLANEOUS FABRICATED PRODUCT MANUFACTURING PROCESSES

Section	
219.920	Applicability
219.923	Permit Conditions
219.926	Control Requirements
219.927	Compliance Schedule
219.928	Testing

SUBPART QQ: MISCELLANEOUS FORMULATION MANUFACTURING PROCESSES

Section	
219.940	Applicability
219.943	Permit Conditions
219.946	Control Requirements
219.947	Compliance Schedule
219.948	Testing

SUBPART RR: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING PROCESSES

Section	
219.960	Applicability

219.963 Permit Conditions
219.966 Control Requirements
219.967 Compliance Schedule
219.968 Testing

SUBPART TT: OTHER EMISSION UNITS

Section
219.980 Applicability
219.983 Permit Conditions
219.986 Control Requirements
219.987 Compliance Schedule
219.988 Testing

SUBPART UU: RECORDKEEPING AND REPORTING

Section
219.990 Exempt Emission Units
219.991 Subject Emission Units

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

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

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

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

SUBPART A: GENERAL PROVISIONS

Section 219.105 Test Methods and Procedures

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

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

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

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

2) Analyses: The applicable analytical methods specified below shall be used to determine the composition of coatings, inks, or fountain solutions

as applied.

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

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

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

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

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

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

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

v) ASTM D 4457-85: Standard test method for determination

of dichloromethane and 1,1,1, trichloroethane in paints and coatings by direct injection into a gas chromatograph. (The procedure delineated above can be used to develop protocols for any compounds specifically exempted from the definition of VOM.) This test method is incorporated by reference in Section 219.112 of this Part.

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

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

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

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

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

3) Calculations: Calculations for determining the VOM content, water content and the content of any compounds which are specifically exempted from the definition of VOM of coatings, inks and fountain solutions as applied 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.

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 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) 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 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) 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 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 shall be expressed as a percentage. The ratio shall be computed within 72 hours following each 7-day period. A source that believes

that the 7-day rolling period is not appropriate may use an alternative multi-day rolling period not to exceed 30 days, with the approval of the Agency and USEPA. In addition, the criteria in subsection (c)(1)(B)(ii) or ~~subsection~~ (c)(1)(B)(iii) ~~below~~ 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, or if~~iii) 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 shall be measured using one of the protocols given below. Appropriate test methods to be utilized in each of the capture efficiency protocols are described in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 of this Part. Any error margin associated with a test method or protocol may not be incorporated into the results of a capture efficiency test. If these techniques are not suitable for a particular process, then an alternative capture efficiency protocol may be used, pursuant to the provisions of Section 219.108(b) of this Part.

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

by reference in Section 219.112 of this Part, is used to obtain F_B.

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

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

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

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

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

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

4) Recordkeeping and Reporting

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

B) If any changes are made to capture or control equipment, then the source is required to notify the Agency and the USEPA of these changes and a new test may be required by the Agency or the USEPA.

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

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

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

also provide documentation that the quality assurance criteria for a TTE have been achieved.

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

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

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

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

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

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

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

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

d) Control Device Efficiency Testing and Monitoring

1) The control device efficiency 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 ~~219~~ 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 (d)(3) of this Section. The continuous monitoring equipment must

monitor the following parameters:

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

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

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

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

C) Of an automobile or light-duty truck primer surfacer operation or topcoat operation subject to subsection (d)(2)(A)~~,~~ shall keep a separate record of the following data for the control devices, unless alternative provisions are 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.

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 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 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, (and revised by subsection (c)(1)(B) of this Section) for each solvent recovery

system. In those cases in which the overall efficiency is being determined for an entire line, the capture efficiency used to calculate the product of the capture and control efficiency is the total capture efficiency over the entire line.

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

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

where:

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

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

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

1) 40 CFR 60, appendix A, Method 18, 25 or 25A, incorporated by reference in Section 219.112 of this Part as appropriate to the conditions at the site,

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

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

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

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

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

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

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

6) 40 CFR 60, appendix A, Methods 2, 2A, 2C, 2D, 3 and 4, incorporated by reference in Section 219.112 of this Part, shall be performed, as applicable, at least twice during each test run.

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

and the USEPA to find that the test methods specified in subsections (f)(1), (2), (3), (4), (5) and (6) of this Section will yield inaccurate results and that the proposed adaptation is appropriate.

g) Leak Detection Methods for Volatile Organic Material

Owners or operators required by this Part to carry out a leak detection monitoring program shall comply with the following requirements:

1) Leak Detection Monitoring

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

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

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

D) Calibration gases shall be:

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

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

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

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

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

B) The background level shall be determined as set forth in Method 21.

3) Leak detection tests 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~~Subpart~~ XX, section 60.503, incorporated by reference in Section 219.112 of this Part.

2) Other tests 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 shall, at his own expense, conduct tests in accordance with the applicable test methods and procedures specific in this Part. Nothing in this Section shall limit the authority of the USEPA pursuant to the Clean Air Act, as amended, to require testing.

~~j) Stage II Gasoline Vapor Recovery Test Methods~~
~~The methods for determining the acceptable performance of Stage II Gasoline Vapor Recovery System are delineated in "Technical Guidance-Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities," found at EPA-450/3-91-022b and incorporated by reference in Section 219.112 of this Part. Specifically, the test methods are as~~

~~follows:~~

~~1)~~ ~~Dynamic Backpressure Test is a test procedure used to determine the pressure drop (flow resistance) through balance vapor collection and control systems (including nozzles, vapor hoses, swivels, dispenser piping and underground piping) at prescribed flow rates.~~

~~2)~~ ~~Pressure Decay/Leak Test is a test procedure used to quantify the vapor tightness of a vapor collection and control system installed at gasoline dispensing facilities.~~

~~3)~~ ~~Liquid Blockage Test is a test procedure used to detect low points in any vapor collection and control system where condensate may accumulate.~~

(Source: Amended at 37 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:

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

1) ASTM D 2879-86

2) ASTM D 323-08

3) ASTM D 86-82

4) ASTM D 369-69 (1971)

5) ASTM D 396-69

6) ASTM D 2880-71

7) ASTM D 975-68

8) ASTM D 3925-81 (1985)

9) ASTM E 300-86

10) ASTM D 1475-85

11) ASTM D 2369-87

12) ASTM D 3792-86

13) ASTM D 4017-81 (1987)

14) ASTM D 4457-85

15) ASTM D 2697-86

16) ASTM D 3980-87

17) ASTM E 180-85

18) ASTM D 2372-85

19) ASTM D 97-66

20) ASTM E 168-87 (1977)

21) ASTM E 169-87

22) ASTM E 260-91

23) ASTM D 2504-83

24) ASTM D 2382-83

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

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

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

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

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

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

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

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

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

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

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

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

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

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

p) "APTI Course SI417 Controlling Volatile Organic Compound Emissions from Leaking Process Equipment", 1982, United States Environmental Protection Agency, Washington, D.C., EPA-450/2-82-015.

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

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

s) "Petroleum Refinery Enforcement Manual", March 1980, United States

Environmental Protection Agency, Washington, D.C., EPA-340/1-80-008.

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

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

~~v) "Technical Guidance Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities", November 1991, United States Environmental Protection Agency, Washington, D.C., EPA-450/3-91-022b.~~

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

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

x)~~y)~~ Memorandum "Revised Capture Efficiency Guidance for Control of Volatile Organic Compound Emissions", February 1995, John S. Seitz, Director, Office of Air Quality Planning and Standards, United States Environmental Protection Agency.

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

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

aa)~~bb)~~ 46 CFR subchapter Q (2007).

bb)~~cc)~~ 46 CFR subchapter T (2008).

(Source: Amended at 37 Ill. Reg. _____, effective _____)

SUBPART Y: GASOLINE DISTRIBUTION

Section 219.583 Gasoline Dispensing Operations – Storage Tank Filling Operations

a) Subject to subsection (b) below, no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing operation unless:

1) The tank is equipped with a submerged loading pipe; and

2) The vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:

A) A vapor collection system that meets the requirements of subsection (d)(4) below; or

B) A refrigeration-condensation system or any other system approved by the Agency and approved by the USEPA as a SIP revision, that recovers at least 90 percent by weight of all vaporized organic material from the equipment being controlled; and

C) The delivery vessel displays the appropriate sticker pursuant to the requirements of Section 219.584(b) or (d) of this Part; and

3) By March 15, 1995, all tank vent pipes are equipped with pressure/vacuum relief valves with the following design specifications:

A) The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less than 6.0 inches water column; or

B) The pressure/vacuum relief valve shall meet the requirements of 35 Ill. Adm. Code 218.586(c); and

4) The owner or operator of a gasoline dispensing operation demonstrates compliance with subsection (a)(3) of this Section, by March 15, 1995 or 30 days after installation of each pressure/vacuum relief valve, whichever is later, and at least annually thereafter, by measuring and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe. The test shall be performed on each tank vent pipe within two hours after product delivery into the respective storage tank. For manifolded tank vent systems, observations at any point within the system shall be adequate. The owner or operator shall maintain any records required by this subsection for a period of three years.

b) The requirements of subsections (a)(2) and (a)(3) above shall not apply to

transfers of gasoline to a stationary storage tank at a gasoline dispensing operation if:

1) The tank is equipped with a floating roof, or other system of equal or better emission control as approved by the Agency and approved by the USEPA as a SIP revision;

2) The tank has a capacity of less than 2000 gallons and was in place and operating before January 1, 1979; or

3) The tank has a capacity of less than 575 gallons.

c) Subject to subsection (b) above, each owner of a gasoline dispensing operation shall:

1) Install all control systems and make all process modifications required by subsection (a) above;

2) Provide instructions to the operator of the gasoline dispensing operation describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and

3) Repair, replace or modify any worn out or malfunctioning component or element of design.

d) Subject to subsection (b) above, each operator of a gasoline dispensing operation shall:

1) Maintain and operate each vapor control system in accordance with the owner's instructions;

2) Promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system;

3) Maintain gauges, meters or other specified testing devices in proper working order;

4) Operate the vapor collection system and delivery vessel unloading points in a manner that prevents:

A) A reading equal to or greater than 100 percent of the lower

explosive limit (LEL measured as propane) when tested in accordance with the procedure described in EPA 450/2-78-051 Appendix B incorporated by reference at Section 219.112 of this Part, and

B) Avoidable leaks of liquid during the filling of storage tanks; and

5) Within 15 business days after discovery of the leak by the owner, operator, or the Agency, repair and retest a vapor collection system which exceeds the limits of subsection (d)(4)(A) above.

e) ~~Any retail gasoline dispensing operation subject to subsection (a) above shall be exempt from the permit requirements specified under 35 Ill. Adm. Code 201.142, 201.143, and 201.144 provided that:~~

~~1) The owner or operator of the gasoline dispensing operation submits to the Agency a registration which provides, at a minimum, the operation name and address, signature of the owner or operator, the location (including contact person's name, address and telephone number) of records and reports required by this Section, the number of underground tanks, the number tank pipe vents, and the date of completion of installation of the vapor control system and pressure/vacuum relief valve.~~

~~2) The registration is submitted to the Agency by March 15, 1995 or 30 days after installation of a vapor control system or pressure/vacuum relief valve, whichever is later.~~

~~3) The registration certificate is displayed at the gasoline dispensing operation.~~

~~4) Upon modification of an existing vapor control system or pressure/vacuum relief valve, the owner or operator of the gasoline dispensing operation submits to the Agency a registration that details the changes to the information provided in the previous registration and which includes the signature of the owner or operator. The registration must be submitted to the Agency within 30 days after completion of such modification.~~

(Source: Amended at 37 Ill. Reg. _____, effective _____)

~~ILLINOIS REGISTER~~ JCAR350219-1306083r01

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

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

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

SUBPART A: GENERAL PROVISIONS

Section
219.100 Introduction
219.101 Savings Clause
219.102 Abbreviations and Conversion Factors
219.103 Applicability
219.104 Definitions
219.105 Test Methods and Procedures
219.106 Compliance Dates
219.107 Operation of Afterburners
219.108 Exemptions, Variations, and Alternative Means of Control or Compliance Determinations
219.109 Vapor Pressure of Volatile Organic Liquids
219.110 Vapor Pressure of Organic Material or Solvent
219.111 Vapor Pressure of Volatile Organic Material
219.112 Incorporations by Reference
219.113 Monitoring for Negligibly-Reactive Compounds

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section
219.119 Applicability for VOL
219.120 Control Requirements for Storage Containers of VOL
219.121 Storage Containers of VPL
219.122 Loading Operations
219.123 Petroleum Liquid Storage Tanks
219.124 External Floating Roofs
219.125 Compliance Dates

219.126 Compliance Plan (Repealed)
219.127 Testing VOL Operations
219.128 Monitoring VOL Operations
219.129 Recordkeeping and Reporting for VOL Operations

SUBPART C: ORGANIC EMISSIONS FROM MISCELLANEOUS EQUIPMENT

Section
219.141 Separation Operations
219.142 Pumps and Compressors
219.143 Vapor Blowdown
219.144 Safety Relief Valves

SUBPART E: SOLVENT CLEANING

Section
219.181 Solvent Cleaning Degreasing Operations
219.182 Cold Cleaning
219.183 Open Top Vapor Degreasing
219.184 Conveyorized Degreasing
219.185 Compliance Schedule (Repealed)
219.186 Test Methods
219.187 Other Industrial Solvent Cleaning Operations

SUBPART F: COATING OPERATIONS

Section
219.204 Emission Limitations
219.205 Daily-Weighted Average Limitations
219.206 Solids Basis Calculation
219.207 Alternative Emission Limitations
219.208 Exemptions From Emission Limitations
219.209 Exemption From General Rule on Use of Organic Material
219.210 Compliance Schedule
219.211 Recordkeeping and Reporting
219.212 Cross-Line Averaging to Establish Compliance for Coating Lines
219.213 Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines
219.214 Changing Compliance Methods

219.215 Wood Furniture Coating Averaging Approach
219.216 Wood Furniture Coating Add-On Control Use
219.217 Wood Furniture Coating and Flat Wood Paneling Coating Work Practice Standards
219.218 Work Practice Standards for Paper Coatings, Metal Furniture Coatings, and Large Appliance Coatings
219.219 Work Practice Standards for Automobile and Light-Duty Truck Assembly Coatings and Miscellaneous Metal and Plastic Parts Coatings

SUBPART G: USE OF ORGANIC MATERIAL

Section
219.301 Use of Organic Material
219.302 Alternative Standard
219.303 Fuel Combustion Emission Units
219.304 Operations with Compliance Program

SUBPART H: PRINTING AND PUBLISHING

Section
219.401 Flexographic and Rotogravure Printing
219.402 Applicability
219.403 Compliance Schedule
219.404 Recordkeeping and Reporting
219.405 Lithographic Printing: Applicability
219.406 Provisions Applying to Heatset Web Offset Lithographic Printing Prior to March 15, 1996 (Repealed)
219.407 Emission Limitations and Control Requirements for Lithographic Printing Lines
219.408 Compliance Schedule for Lithographic Printing On and After March 15, 1996 (Repealed)
219.409 Testing for Lithographic Printing
219.410 Monitoring Requirements for Lithographic Printing
219.411 Recordkeeping and Reporting for Lithographic Printing
219.412 Letterpress Printing Lines: Applicability
219.413 Emission Limitations and Control Requirements for Letterpress Printing Lines
219.415 Testing for Letterpress Printing Lines
219.416 Monitoring Requirements for Letterpress Printing Lines
219.417 Recordkeeping and Reporting for Letterpress Printing Lines

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

SUBPART Q: SYNTHETIC ORGANIC CHEMICAL AND POLYMER MANUFACTURING PLANT

Section	
219.421	General Requirements
219.422	Inspection Program Plan for Leaks
219.423	Inspection Program for Leaks
219.424	Repairing Leaks
219.425	Recordkeeping for Leaks
219.426	Report for Leaks
219.427	Alternative Program for Leaks
219.428	Open-Ended Valves
219.429	Standards for Control Devices
219.430	Compliance Date (Repealed)
219.431	Applicability
219.432	Control Requirements
219.433	Performance and Testing Requirements
219.434	Monitoring Requirements
219.435	Recordkeeping and Reporting Requirements
219.436	Compliance Date

SUBPART R: PETROLEUM REFINING AND RELATED INDUSTRIES; ASPHALT MATERIALS

Section	
219.441	Petroleum Refinery Waste Gas Disposal
219.442	Vacuum Producing Systems
219.443	Wastewater (Oil/Water) Separator
219.444	Process Unit Turnarounds
219.445	Leaks: General Requirements
219.446	Monitoring Program Plan for Leaks
219.447	Monitoring Program for Leaks
219.448	Recordkeeping for Leaks
219.449	Reporting for Leaks
219.450	Alternative Program for Leaks
219.451	Sealing Device Requirements
219.452	Compliance Schedule for Leaks
219.453	Compliance Dates (Repealed)

SUBPART S: RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

Section
219.461 Manufacture of Pneumatic Rubber Tires
219.462 Green Tire Spraying Operations
219.463 Alternative Emission Reduction Systems
219.464 Emission Testing
219.465 Compliance Dates (Repealed)
219.466 Compliance Plan (Repealed)

SUBPART T: PHARMACEUTICAL MANUFACTURING

Section
219.480 Applicability
219.481 Control of Reactors, Distillation Units, Crystallizers, Centrifuges and Vacuum Dryers
219.482 Control of Air Dryers, Production Equipment Exhaust Systems and Filters
219.483 Material Storage and Transfer
219.484 In-Process Tanks
219.485 Leaks
219.486 Other Emission Units
219.487 Testing
219.488 Monitoring for Air Pollution Control Equipment
219.489 Recordkeeping for Air Pollution Control Equipment

SUBPART V: BATCH OPERATIONS AND AIR OXIDATION PROCESSES

Section
219.500 Applicability for Batch Operations
219.501 Control Requirements for Batch Operations
219.502 Determination of Uncontrolled Total Annual Mass Emissions and Actual Weighted Average Flow Rate Values for Batch Operations
219.503 Performance and Testing Requirements for Batch Operations
219.504 Monitoring Requirements for Batch Operations
219.505 Reporting and Recordkeeping for Batch Operations
219.506 Compliance Date
219.520 Emission Limitations for Air Oxidation Processes
219.521 Definitions (Repealed)
219.522 Savings Clause

219.523 Compliance
219.524 Determination of Applicability
219.525 Emission Limitations for Air Oxidation Processes (Renumbered)
219.526 Testing and Monitoring
219.527 Compliance Date (Repealed)

SUBPART W: AGRICULTURE

Section
219.541 Pesticide Exception

SUBPART X: CONSTRUCTION

Section
219.561 Architectural Coatings
219.562 Paving Operations
219.563 Cutback Asphalt

SUBPART Y: GASOLINE DISTRIBUTION

Section
219.581 Bulk Gasoline Plants
219.582 Bulk Gasoline Terminals
219.583 Gasoline Dispensing Operations – Storage Tank Filling Operations
219.584 Gasoline Delivery Vessels
219.585 Gasoline Volatility Standards (Repealed)
219.586 Gasoline Dispensing Operations – Motor Vehicle Fueling Operations (Repealed)

SUBPART Z: DRY CLEANERS

Section
219.601 Perchloroethylene Dry Cleaners (Repealed)
219.602 Exemptions (Repealed)
219.603 Leaks (Repealed)
219.604 Compliance Dates (Repealed)
219.605 Compliance Plan (Repealed)
219.606 Exception to Compliance Plan (Repealed)
219.607 Standards for Petroleum Solvent Dry Cleaners
219.608 Operating Practices for Petroleum Solvent Dry Cleaners

219.609 Program for Inspection and Repair of Leaks
219.610 Testing and Monitoring
219.611 Exemption for Petroleum Solvent Dry Cleaners
219.612 Compliance Dates (Repealed)
219.613 Compliance Plan (Repealed)

SUBPART AA: PAINT AND INK MANUFACTURING

Section
219.620 Applicability
219.621 Exemption for Waterbase Material and Heatset-Offset Ink
219.623 Permit Conditions
219.624 Open-Top Mills, Tanks, Vats or Vessels
219.625 Grinding Mills
219.626 Storage Tanks
219.628 Leaks
219.630 Clean Up
219.636 Compliance Schedule
219.637 Recordkeeping and Reporting

SUBPART BB: POLYSTYRENE PLANTS

Section
219.640 Applicability
219.642 Emissions Limitation at Polystyrene Plants
219.644 Emissions Testing

SUBPART FF: BAKERY OVENS

Section
219.720 Applicability (Repealed)
219.722 Control Requirements (Repealed)
219.726 Testing (Repealed)
219.727 Monitoring (Repealed)
219.728 Recordkeeping and Reporting (Repealed)
219.729 Compliance Date (Repealed)
219.730 Certification (Repealed)

SUBPART GG: MARINE TERMINALS

Section
219.760 Applicability
219.762 Control Requirements
219.764 Compliance Certification
219.766 Leaks
219.768 Testing and Monitoring
219.770 Recordkeeping and Reporting

SUBPART HH: MOTOR VEHICLE REFINISHING

Section
219.780 Emission Limitations
219.782 Alternative Control Requirements
219.784 Equipment Specifications
219.786 Surface Preparation Materials
219.787 Work Practices
219.788 Testing
219.789 Monitoring and Recordkeeping for Control Devices
219.790 General Recordkeeping and Reporting (Repealed)
219.791 Compliance Date
219.792 Registration (Repealed)
219.875 Applicability of Subpart BB (Renumbered)
219.877 Emissions Limitation at Polystyrene Plants (Renumbered)
219.879 Compliance Date (Repealed)
219.881 Compliance Plan (Repealed)
219.883 Special Requirements for Compliance Plan (Repealed)
219.886 Emissions Testing (Renumbered)

SUBPART II: FIBERGLASS BOAT MANUFACTURING MATERIALS

Section
219.890 Applicability
219.891 Emission Limitations and Control Requirements
219.892 Testing and Monitoring Requirements
219.894 Recordkeeping and Reporting Requirements

SUBPART JJ: MISCELLANEOUS INDUSTRIAL ADHESIVES

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

Section
219.900 Applicability
219.901 Emission Limitations and Control Requirements
219.902 Testing Requirements
219.903 Monitoring Requirements
219.904 Recordkeeping and Reporting Requirements

SUBPART PP: MISCELLANEOUS FABRICATED PRODUCT MANUFACTURING PROCESSES

Section
219.920 Applicability
219.923 Permit Conditions
219.926 Control Requirements
219.927 Compliance Schedule
219.928 Testing

SUBPART QQ: MISCELLANEOUS FORMULATION MANUFACTURING PROCESSES

Section
219.940 Applicability
219.943 Permit Conditions
219.946 Control Requirements
219.947 Compliance Schedule
219.948 Testing

SUBPART RR: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING PROCESSES

Section
219.960 Applicability
219.963 Permit Conditions
219.966 Control Requirements
219.967 Compliance Schedule
219.968 Testing

SUBPART TT: OTHER EMISSION UNITS

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

Section
219.980 Applicability
219.983 Permit Conditions
219.986 Control Requirements
219.987 Compliance Schedule
219.988 Testing

SUBPART UU: RECORDKEEPING AND REPORTING

Section
219.990 Exempt Emission Units
219.991 Subject Emission Units

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

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

SOURCE: Adopted in R91-8 at 15 Ill. Reg. 12491, effective August 16, 1991; amended in R91-24 at 16 Ill. Reg. 13597, effective August 24, 1992; amended in R91-30 at 16 Ill. Reg. 13883, effective August 24, 1992; emergency amendment in R93-12 at 17 Ill. Reg. 8295, effective May 24, 1993, for a maximum of 150 days; amended in R93-9 at 17 Ill. Reg. 16918, effective September 27, 1993 and October 21, 1993; amended in R93-28 at 18 Ill. Reg. 4242, effective March 3, 1994; amended in R94-12 at 18 Ill. Reg. 14987, effective September 21, 1994; amended in R94-15 at 18 Ill. Reg. 16415, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16980, effective November 15, 1994; emergency amendment in R95-10 at 19 Ill. Reg. 3059, effective February 28, 1995, for a maximum of 150 days; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6958, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7385, effective May 22, 1995; amended in R96-2 at 20 Ill. Reg. 3848, effective February 15, 1996; amended in R96-13 at 20 Ill. Reg. 14462, effective October 28, 1996; amended in R97-24 at 21 Ill. Reg. 7721, effective June 9, 1997; amended in R97-31 at 22 Ill. Reg. 3517, effective February

2, 1998; amended in R04-12/20 at 30 Ill. Reg. 9799, effective May 15, 2006; amended in R06-21 at 31 Ill. Reg. 7110, effective April 30, 2007; amended in R10-10 at 34 Ill. Reg. 5392, effective March 23, 2010; amended in R10-8 at 34 Ill. Reg. 9253, effective June 25, 2010; amended in R10-20 at 34 Ill. Reg. 14326, effective September 14, 2010; amended in R10-8(A) at 35 Ill. Reg. 496, effective December 21, 2010; amended in R11-23 at 35 Ill. Reg. 13676, effective July 27, 2011; amended in R11-23(A)~~,~~ at 35 Ill. Reg. 18830, effective October 25, 2011~~)~~; amended in R12-24 at 37 Ill. Reg. 1722, effective January 28, 2013; amended in R13-18 at 37 Ill. Reg. ~~_____~~ _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 219.105 Test Methods and Procedures

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

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

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

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

2) Analyses: The applicable analytical methods specified below shall be used

to determine the composition of coatings, inks, or fountain solutions as applied.

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

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

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

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

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

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

iv) ASTM D 4017-81 (1987): Standard test method for water

content in paints and paint materials by the Karl Fischer method. This test method is incorporated by reference in Section 219.112 of this Part.

v) ASTM D 4457-85: Standard test method for determination of dichloromethane and 1,1,1, trichloroethane in paints and coatings by direct injection into a gas chromatograph. (The procedure delineated above can be used to develop protocols for any compounds specifically exempted from the definition of VOM.) This test method is incorporated by reference in Section 219.112 of this Part.

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

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

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

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

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

3) Calculations: Calculations for determining the VOM content, water

content and the content of any compounds which are specifically exempted from the definition of VOM of coatings, inks and fountain solutions as applied 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.

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 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) 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 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) 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 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 shall be expressed as a percentage. The ratio shall be computed within 72 hours following each 7-day period. A source that believes that the 7-day rolling period is not appropriate may use an alternative multi-day rolling period not to exceed 30 days, with the approval of the Agency and USEPA. In addition, the criteria in subsection (c)(1)(B)(ii) or ~~subsection~~ (c)(1)(B)(iii)~~) below~~ 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, or ~~iii)~~ ~~If~~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 shall be measured using one of the protocols given below. Appropriate test methods to be utilized in each of the capture efficiency protocols are described in appendix M of 40 CFR

51, incorporated by reference in Section 219.112 of this Part. Any error margin associated with a test method or protocol may not be incorporated into the results of a capture efficiency test. If these techniques are not suitable for a particular process, then an alternative capture efficiency protocol may be used, pursuant to the provisions of Section 219.108(b) of this Part.

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

F_B = mass of uncaptured VOM that escapes from building

enclosure.

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

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

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

where:

CE = capture efficiency, decimal fraction;

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

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

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

E) Mass balance using Data Quality Objective (DQO) or Lower Confidence Limit (LCL) protocol. For a liquid/gas input where an owner or operator is using the DQO/LCL protocol and not using an

enclosure as described in Method 204 of appendix M of 40 CFR 51, incorporated by reference in Section 219.112 of this Part, the VOM content of the liquid input (L) must be determined using Method 204A or 204F in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 of this Part. The VOM content of the captured gas stream (G) to the control device must be determined using Method 204B or 204C in appendix M of 40 CFR 51, incorporated by reference in Section 219.112 of this Part. The results of capture efficiency calculations (G/L) must satisfy the DQO or LCL statistical analysis methodology as described in Section 3 of USEPA's "Guidelines for Determining Capture Efficiency",~~"~~ incorporated by reference at Section 219.112 of this Part. Where capture efficiency testing is done to determine emission reductions for the purpose of establishing emission credits for offsets, shutdowns, and trading, the LCL protocol cannot be used for these applications. In enforcement cases, the LCL protocol cannot confirm non-compliance; capture efficiency must be determined using a protocol under subsection (c)(2)(A), (B), (C) or (D) of this Section, the DQO protocol of this subsection (c)(2)(E), or an alternative protocol pursuant to Section 219.108(b) of this Part.

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

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

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

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

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

4) Recordkeeping and Reporting

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

B) If any changes are made to capture or control equipment, then the source is required to notify the Agency and the USEPA of these changes and a new test may be required by the Agency or the USEPA.

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

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

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

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

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

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

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

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

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

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

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

d) Control Device Efficiency Testing and Monitoring

1) The control device efficiency 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 ~~219~~ 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 (d)(3) of this Section. The continuous monitoring equipment must monitor the following parameters:

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

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

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

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

C) Of an automobile or light-duty truck primer surfacer operation or topcoat operation subject to subsection (d)(2)(A)~~,~~ shall keep a separate record of the following data for the control devices, unless alternative provisions are 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.

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

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

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

where:

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

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

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

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

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

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

B) When the method is to be used to determine the efficiency of a carbon adsorption system with individual exhaust stacks for each adsorber vessel, each adsorber vessel shall be tested individually. The test for each adsorber vessel shall consist of three separate

runs. Each run shall coincide with one or more complete adsorption cycles.

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

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

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

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

6) 40 CFR 60, appendix A, Methods 2, 2A, 2C, 2D, 3 and 4, incorporated by reference in Section 219.112 of this Part, shall be performed, as applicable, at least twice during each test run.

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

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

1) Leak Detection Monitoring

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

B) The detection instrument shall meet the performance criteria of

Method 21.

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

D) Calibration gases shall be:

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

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

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

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

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

B) The background level shall be determined as set forth in Method 21.

3) Leak detection tests 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, Subpartsubpart XX, section 60.503, incorporated by reference in Section 219.112 of this Part.

2) Other tests 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 shall, at his own expense, conduct tests in accordance with the applicable test methods and procedures specific in this Part. Nothing in this Section shall limit the authority of the USEPA pursuant to the Clean Air Act, as amended, to require testing.

j) Stage II Gasoline Vapor Recovery Test Methods

The methods for determining the acceptable performance of Stage II Gasoline Vapor Recovery System are delineated in "Technical Guidance-Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities," found at EPA-450/3-91-022b and incorporated by reference in Section 219.112 of this Part. Specifically, the test methods are as follows:

1) Dynamic Backpressure Test is a test procedure used to determine the pressure drop (flow resistance) through balance vapor collection and

~~control systems (including nozzles, vapor hoses, swivels, dispenser piping and underground piping) at prescribed flow rates.~~

~~2)~~ ~~Pressure Decay/Leak Test is a test procedure used to quantify the vapor tightness of a vapor collection and control system installed at gasoline dispensing facilities.~~

~~3)~~ ~~Liquid Blockage Test is a test procedure used to detect low points in any vapor collection and control system where condensate may accumulate.~~

(Source: Amended at 37 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:

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

1) ASTM D 2879-86

2) ASTM D 323-08

3) ASTM D 86-82

4) ASTM D 369-69 (1971)

5) ASTM D 396-69

6) ASTM D 2880-71

7) ASTM D 975-68

8) ASTM D 3925-81 (1985)

9) ASTM E 300-86

10) ASTM D 1475-85

11) ASTM D 2369-87

12) ASTM D 3792-86

13) ASTM D 4017-81 (1987)

14) ASTM D 4457-85

15) ASTM D 2697-86

16) ASTM D 3980-87

17) ASTM E 180-85

18) ASTM D 2372-85

19) ASTM D 97-66

20) ASTM E 168-87 (1977)

21) ASTM E 169-87

22) ASTM E 260-91

23) ASTM D 2504-83

24) ASTM D 2382-83

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

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

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

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

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

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

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

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

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

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

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

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

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

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

p) "APTI Course SI417 Controlling Volatile Organic Compound Emissions from Leaking Process Equipment", 1982, United States Environmental Protection Agency, Washington, D.C., EPA-450/2-82-015.

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

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

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

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

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

~~v)~~ ~~"Technical Guidance Stage II Vapor Recovery Systems for Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities", November 1991, United States Environmental Protection Agency, Washington, D.C., EPA-450/3-91-022b.~~

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

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

~~xy~~x) Memorandum "Revised Capture Efficiency Guidance for Control of Volatile Organic Compound Emissions", February 1995, John S. Seitz, Director, Office of Air Quality Planning and Standards, United States Environmental Protection Agency.

~~yz~~y) "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations", September 2008, United States Environmental Protection Agency, Washington,

D.C., EPA-453/R-08-002.

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

~~aabb~~aa) 46 CFR subchapter Q (2007).

~~bbcc~~bb) 46 CFR subchapter T (2008).

(Source: Amended at 37 Ill. Reg. _____, effective _____)

SUBPART Y: GASOLINE DISTRIBUTION

Section 219.583 Gasoline Dispensing Operations ~~-~~ Storage Tank Filling Operations

a) Subject to subsection (b) below, no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing ~~facility~~operation unless:

1) The tank is equipped with a submerged loading pipe; and

2) The vapors displaced from the storage tank during filling are processed by a vapor control system that includes one or more of the following:

A) A vapor collection system that meets the requirements of subsection (d)(4) below; or

B) A refrigeration-condensation system or any other system approved by the Agency and approved by the USEPA as a SIP revision, that recovers at least 90 percent by weight of all vaporized organic material from the equipment being controlled; and

C) The delivery vessel displays the appropriate sticker pursuant to the requirements of Section 219.584(b) or (d) of this Part; and

3) By March 15, 1995, all tank vent pipes are equipped with pressure/vacuum relief valves with the following design specifications:

A) The pressure/vacuum relief valve shall be set to resist a pressure of at least 3.5 inches water column and to resist a vacuum of no less

than 6.0 inches water column; or

B) The pressure/vacuum relief valve shall meet the requirements of 35 Ill. Adm. Code 218.586(c); and

4) The owner or operator of a gasoline dispensing operation demonstrates compliance with subsection (a)(3) of this Section, by March 15, 1995 or 30 days after installation of each pressure/vacuum relief valve, whichever is later, and at least annually thereafter, by measuring and recording the pressure indicated by a pressure/vacuum gauge at each tank vent pipe. The test shall be performed on each tank vent pipe within two hours after product delivery into the respective storage tank. For manifoldmanifolded tank vent systems, observations at any point within the system shall be adequate. The owner or operator shall maintain any records required by this subsection for a period of three years.

b) The requirements of subsections (a)(2) and (a)(3) above shall not apply to transfers of gasoline to a stationary storage tank at a gasoline dispensing facilityoperation if:

1) The tank is equipped with a floating roof, or other system of equal or better emission control as approved by the Agency and approved by the USEPA as a SIP revision;

2) The tank has a capacity of less than 2000 gallons and was in place and operating before January 1, 1979; or

3) The tank has a capacity of less than 575 gallons.

c) Subject to subsection (b) above, each owner of a gasoline dispensing facilityoperation shall:

1) Install all control systems and make all process modifications required by subsection (a) above;

2) Provide instructions to the operator of the gasoline dispensing facilityoperation describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and

3) Repair, replace or modify any worn out or malfunctioning component or element of design.

d) Subject to subsection (b) above, each operator of a gasoline dispensing operation shall:

1) Maintain and operate each vapor control system in accordance with the owner's instructions;

2) Promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system;

3) Maintain gauges, meters or other specified testing devices in proper working order;

4) Operate the vapor collection system and delivery vessel unloading points in a manner that prevents:

A) A reading equal to or greater than 100 percent of the lower explosive limit (LEL measured as propane) when tested in accordance with the procedure described in EPA 450/2-78-051 Appendix B incorporated by reference at Section 219.112 of this Part, and

B) Avoidable leaks of liquid during the filling of storage tanks; and

5) Within 15 business days after discovery of the leak by the owner, operator, or the Agency, repair and retest a vapor collection system which exceeds the limits of subsection (d)(4)(A) above.

e) ~~(Reserved)Any retail gasoline dispensing operation subject to subsection (a) above shall be exempt from the permit requirements specified under 35 Ill. Adm. Code 201.142, 201.143, and 201.144 provided that:~~

~~1)~~ ~~The owner or operator of the gasoline dispensing operation submits to the Agency a registration which provides, at a minimum, the operation name and address, signature of the owner or operator, the location (including~~

contact person's name, address and telephone number) of records and reports required by this Section, the number of underground tanks, the number of tank pipe vents, and the date of completion of installation of the vapor control system and pressure/vacuum relief valve.

2) The registration is submitted to the Agency by March 15, 1995 or 30 days after installation of a vapor control system or pressure/vacuum relief valve, whichever is later.

3) The registration certificate is displayed at the gasoline dispensing operation.

4) Upon modification of an existing vapor control system or pressure/vacuum relief valve, the owner or operator of the gasoline dispensing operation submits to the Agency a registration that details the changes to the information provided in the previous registration and which includes the signature of the owner or operator. The registration must be submitted to the Agency within 30 days after completion of such modification.

(Source: Amended at 37 Ill. Reg. ____ _____, effective _____)

Document comparison by Workshare Compare on Friday, May 03, 2013 12:45:20 PM

Input:	
Document 1 ID	file://I:\Input\Agency Rulemakings - Files Received\2013\April2013\35-219-Agency(issue19).docx
Description	35-219-Agency(issue19)
Document 2 ID	file://I:\Input\Agency Rulemakings - Files Received\2013\April2013\35-219-JCAR(R01)(issue19).docx
Description	35-219-JCAR(R01)(issue19)
Rendering set	Standard

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	32
Deletions	42
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	74