

ILLINOIS POLLUTION CONTROL BOARD  
September 15, 1994

IN THE MATTER OF: )  
)  
15% ROP PLAN CONTROL MEASURES )  
FOR VOM EMISSIONS-PART IV: )  
TIGHTENING SURFACE COATING )  
STANDARDS; SURFACE COATING OF )  
AUTOMOTIVE\TRANSPORTATION AND )  
BUSINESS MACHINE PLASTIC PARTS; ) R94-21  
WOOD FURNITURE COATING; REACTOR ) (Rulemaking)  
PROCESSES AND DISTILLATION )  
OPERATION PROCESSES IN SOCMI; )  
AND BAKERY OVENS; AMENDMENTS TO )  
35 ILL. ADM. CODE PARTS 211, )  
218 AND 219 )

Proposed Rule. First Notice.

OPINION AND ORDER OF THE BOARD (by G. T. Girard):

On September 12, 1994, the Illinois Environmental Protection Agency (Agency) filed this proposal for rulemaking. Section 182(b)(1) of the Clean Air Act (CAA), as amended in 1990, requires all moderate and above ozone nonattainment areas to achieve a 15% reduction of 1990 emissions of volatile organic material (VOM) by 1996. In Illinois, the Chicago and Metro-East St. Louis (Metro-East) areas are classified as "severe" and "moderate" nonattainment for ozone, respectively, and as such are subject to the 15% reduction requirement. Also pursuant to Section 182(b) of the CAA, Illinois is to submit a 15% Rate of Progress Plan (ROP) within three years of the enactment of the CAA amendments. This rulemaking represents Part IV of the rules proposed in Illinois' 15% ROP.

The proposal includes several measures for reduction of VOM in various coating operations. Specifically, lower limits for VOM content of coatings applied to the following categories are proposed: can, paper, coil, fabric, vinyl, metal furniture coatings, baked large appliance coatings and miscellaneous parts and products. The proposal also includes amendments requiring automotive\transportation and business machine plastic parts coating sources to meet specific pound per gallon VOM limitations for coating operations which exceed the applicability threshold set forth in the rule or which emit more than 15 pounds per day of VOM. Finally, the proposal tightens the applicability levels (from 100 tons per year to 25 tons per year) for wood furniture coating operations.

The proposal also includes provisions regulating synthetic organic chemical manufacturing industry (SOCMI) distillation and reactor processes and bakery oven VOM emissions. SOCMI processes regulated by this proposal will be required to apply control

technology to certain process vents which demonstrates 98% reduction of VOM emissions or reduces VOM to 20 parts per million by volume on a dry basis corrected to 3% oxygen.

This proposal was filed pursuant to Section 28.5 of the Act and is accepted for hearing. (P.A. 87-1213, effective September 26, 1992; 415 ILCS 5/28.5.) Pursuant to the provisions of that section the Board is required to proceed within set time-frames toward the adoption of this regulation. The Board has no discretion to adjust these time-frames under any circumstances. Therefore, the Board acts today to send this proposal to first notice under the Illinois Administrative Procedure Act without commenting on the merits of the proposal. The following schedule<sup>1</sup> indicates the deadlines by which the Board must act under the provisions of Section 28.5:

First Notice	on or before September 26, 1994
First Hearing	on or before November 6, 1994
Second Hearing	on or before December 6, 1994
Third Hearing	on or before December 16, 1994
Second Notice	on or before January 20, or February 9, 1995
Final Filing	21 days after receipt of JCAR certification of no objection

The Agency has filed a motion asking that the Board waive several requirements which govern the filing of a regulatory proposal. Specifically, the Agency asks that it be allowed to submit the original and five complete copies of the proposal and four partial copies of the proposal, rather than the original and nine complete copies to the Board. Further, the Agency asks that it not be required to supply the Attorney General or the Department of Energy and Natural Resources with a complete copy of the proposal. Lastly, the Agency asks that it not be required to submit documents which are readily available to the Board on which the Agency will rely at hearing. The Board grants the Agency's motion.

In the interest of administrative economy, the Board directs the Hearing Officer to verify that the persons on the Notice List in this proceeding wish to continue to receive mailings in this proceeding.

#### ORDER

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<sup>1</sup> This schedule includes a second and third hearing which may be cancelled if unnecessary. Hearings will be continued from day to day as necessary to complete the subject matter established by statute for each set of hearings.

The Board directs the Clerk to cause the filing of the following proposal for First Notice in the Illinois Register:

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

PART 211  
 DEFINITIONS AND GENERAL PROVISIONS

SUBPART A: GENERAL PROVISIONS

Section	
211.101	Incorporations by Reference
211.102	Abbreviations and Units

SUBPART B: DEFINITIONS

Section	
211.121	Other Definitions
211.122	Definitions (Repealed)
211.130	Accelacota
211.150	Accumulator
211.170	Acid Gases
211.210	Actual Heat Input
211.230	Adhesive
211.250	Aeration
211.270	Aerosol Can Filling Line
211.290	Afterburner
211.310	Air Contaminant
211.330	Air Dried Coatings
211.350	Air Oxidation Process
211.370	Air Pollutant
211.390	Air Pollution
211.410	Air Pollution Control Equipment
211.430	Air Suspension Coater/Dryer
211.450	Airless Spray
211.470	Air Assisted Airless Spray
211.490	Annual Grain Through-Put
211.510	Application Area
211.530	Architectural Coating
211.550	As Applied
211.570	Asphalt
211.590	Asphalt Prime Coat
211.610	Automobile
211.630	Automobile or Light-Duty Truck Assembly Source or Automobile or Light-Duty Truck Manufacturing Plant
211.650	Automobile or Light-Duty Truck Refinishing
<u>211.660</u>	<u>Automotive/Transportation Plastic Parts</u>
211.670	Baked Coatings

211.680 Bakery Oven  
211.690 Batch Loading  
211.710 Bead-Dipping  
211.730 Binders  
211.750 British Thermal Unit  
211.770 Brush or Wipe Coating  
211.790 Bulk Gasoline Plant  
211.810 Bulk Gasoline Terminal  
211.820 Business Machine Plastic Parts  
211.830 Can  
211.850 Can Coating  
211.870 Can Coating Line  
211.890 Capture  
211.910 Capture Device  
211.930 Capture Efficiency  
211.950 Capture System  
211.970 Certified Investigation  
211.980 Chemical Manufacturing Process Unit  
211.990 Choke Loading  
211.1010 Clean Air Act  
211.1050 Cleaning and Separating Operation  
211.1070 Cleaning Materials  
211.1090 Clear Coating  
211.1110 Clear Topcoat  
211.1130 Closed Purge System  
211.1150 Closed Vent System  
211.1170 Coal Refuse  
211.1190 Coating  
211.1210 Coating Applicator  
211.1230 Coating Line  
211.1250 Coating Plant  
211.1270 Coil Coating  
211.1290 Coil Coating Line  
211.1310 Cold Cleaning  
211.1330 Complete Combustion  
211.1350 Component  
211.1370 Concrete Curing Compounds  
211.1390 Concentrated Nitric Acid Manufacturing Process  
211.1410 Condensate  
211.1430 Condensible PM-10  
211.1470 Continuous Process  
211.1490 Control Device  
211.1510 Control Device Efficiency  
211.1530 Conventional Soybean Crushing Source  
211.1550 Conveyorized Degreasing  
211.1570 Crude Oil  
211.1590 Crude Oil Gathering  
211.1610 Crushing  
211.1630 Custody Transfer  
211.1650 Cutback Asphalt  
211.1670 Daily-Weighted Average VOM Content  
211.1690 Day  
211.1710 Degreaser  
211.1730 Delivery Vessel

211.1750 Dip Coating  
211.1770 Distillate Fuel Oil  
211.1780 Distillation Unit  
211.1790 Drum  
211.1810 Dry Cleaning Operation or Dry Cleaning Facility  
211.1830 Dump-Pit Area  
211.1850 Effective Grate Area  
211.1870 Effluent Water Separator  
211.1880 Electromagnetic Interference/Radio Frequency  
Interference (EMI/RFI) Shielding Coatings  
211.1890 Electrostatic Bell or Disc Spray  
211.1900 Electrostatic Prep Coat  
211.1910 Electrostatic Spray  
211.1930 Emission Rate  
211.1950 Emission Unit  
211.1970 Enamel  
211.1990 Enclose  
211.2010 End Sealing Compound Coat  
211.2030 Enhanced Under-the-Cup Fill  
211.2050 Ethanol Blend Gasoline  
211.2070 Excess Air  
211.2090 Excessive Release  
211.2110 Existing Grain-Drying Operation  
211.2130 Existing Grain-Handling Operation  
211.2150 Exterior Base Coat  
211.2170 Exterior End Coat  
211.2190 External Floating Roof  
211.2210 Extreme Performance Coating  
211.2230 Fabric Coating  
211.2250 Fabric Coating Line  
211.2270 Federally Enforceable Limitations and Conditions  
211.2290 Fermentation Time  
211.2310 Final Repair Coat  
211.2330 Firebox  
211.2350 Fixed-Roof Tank  
211.2360 Flexible Coating  
211.2365 Flexible Operation Unit  
211.2370 Flexographic Printing  
211.2390 Flexographic Printing Line  
211.2410 Floating Roof  
211.2430 Fountain Solution  
211.2450 Freeboard Height  
211.2470 Fuel Combustion Emission Unit or Fuel Combustion  
Emission Source  
211.2490 Fugitive Particulate Matter  
211.2510 Full Operating Flowrate  
211.2530 Gas Service  
211.2550 Gas/Gas Method  
211.2570 Gasoline  
211.2590 Gasoline Dispensing Operation or Gasoline Dispensing  
Facility  
211.2610 Gel Coat  
211.2630 Gloss Reducers  
211.2650 Grain

211.2670 Grain-Drying Operation  
211.2690 Grain-Handling and Conditioning Operation  
211.2710 Grain-Handling Operation  
211.2730 Green-Tire Spraying  
211.2750 Green Tires  
211.2770 Gross Heating Value  
211.2790 Gross Vehicle Weight Rating  
211.2810 Heated Airless Spray  
211.2830 Heatset  
211.2850 Heatset-Web-Offset Lithographic Printing Line  
211.2870 Heavy Liquid  
211.2890 Heavy Metals  
211.2910 Heavy Off-Highway Vehicle Products  
211.2930 Heavy Off-Highway Vehicle Products Coating  
211.2950 Heavy Off-Highway Vehicle Products Coating Line  
211.2970 High Temperature Aluminum Coating  
211.2990 High Volume Low Pressure (HVLP) Spray  
211.3010 Hood  
211.3030 Hot Well  
211.3050 Housekeeping Practices  
211.3070 Incinerator  
211.3090 Indirect Heat Transfer  
211.3110 Ink  
211.3130 In-Process Tank  
211.3150 In-Situ Sampling Systems  
211.3170 Interior Body Spray Coat  
211.3190 Internal-Floating Roof  
211.3210 Internal Transferring Area  
211.3230 Lacquers  
211.3250 Large Appliance  
211.3270 Large Appliance Coating  
211.3290 Large Appliance Coating Line  
211.3310 Light Liquid  
211.3330 Light-Duty Truck  
211.3350 Light Oil  
211.3370 Liquid/Gas Method  
211.3390 Liquid-Mounted Seal  
211.3410 Liquid Service  
211.3430 Liquids Dripping  
211.3450 Lithographic Printing Line  
211.3470 Load-Out Area  
211.3490 Low Solvent Coating  
211.3510 Magnet Wire  
211.3530 Magnet Wire Coating  
211.3550 Magnet Wire Coating Line  
211.3570 Major Dump Pit  
211.3590 Major Metropolitan Area (MMA)  
211.3610 Major Population Area (MPA)  
211.3630 Manufacturing Process  
211.3650 Marine Terminal  
211.3670 Material Recovery Section  
211.3690 Maximum Theoretical Emissions  
211.3710 Metal Furniture  
211.3730 Metal Furniture Coating

211.3750 Metal Furniture Coating Line  
211.3770 Metallic Shoe-Type Seal  
211.3790 Miscellaneous Fabricated Product Manufacturing Process  
211.3810 Miscellaneous Formulation Manufacturing Process  
211.3830 Miscellaneous Metal Parts and Products  
211.3850 Miscellaneous Metal Parts and Products Coating  
211.3870 Miscellaneous Metal Parts or Products Coating Line  
211.3890 Miscellaneous Organic Chemical Manufacturing Process  
211.3910 Mixing Operation  
211.3930 Monitor  
211.3950 Monomer  
211.3970 Multiple Package Coating  
211.3990 New Grain-Drying Operation  
211.4010 New Grain-Handling Operation  
211.4030 No Detectable Volatile Organic Material Emissions  
211.4050 Non-contact Process Water Cooling Tower  
211.4055 Non-Flexible Coating  
211.4070 Offset  
211.4090 One Hundred Percent Acid  
211.4110 One-Turn Storage Space  
211.4130 Opacity  
211.4150 Opaque Stains  
211.4170 Open Top Vapor Degreasing  
211.4190 Open-Ended Valve  
211.4210 Operator of a Gasoline Dispensing Operation or Operator  
of a Gasoline Dispensing Facility  
211.4230 Organic Compound  
211.4250 Organic Material and Organic Materials  
211.4270 Organic Vapor  
211.4290 Oven  
211.4310 Overall Control  
211.4330 Overvarnish  
211.4350 Owner of a Gasoline Dispensing Operation or Owner of a  
Gasoline Dispensing Facility  
211.4370 Owner or Operator  
211.4390 Packaging Rotogravure Printing  
211.4410 Packaging Rotogravure Printing Line  
211.4430 Pail  
211.4450 Paint Manufacturing Source or Paint Manufacturing Plant  
211.4470 Paper Coating  
211.4490 Paper Coating Line  
211.4510 Particulate Matter  
211.4530 Parts Per Million (Volume) or PPM (Vol)  
211.4550 Person  
211.4590 Petroleum  
211.4610 Petroleum Liquid  
211.4630 Petroleum Refinery  
211.4650 Pharmaceutical  
211.4670 Pharmaceutical Coating Operation  
211.4690 Photochemically Reactive Material  
211.4710 Pigmented Coatings  
211.4730 Plant  
211.4740 Plastic Part  
211.4750 Plasticizers

211.4770 PM-10  
211.4790 Pneumatic Rubber Tire Manufacture  
211.4810 Polybasic Organic Acid Partial Oxidation Manufacturing  
Process  
211.4830 Polyester Resin Material(s)  
211.4850 Polyester Resin Products Manufacturing Process  
211.4870 Polystyrene Plant  
211.4890 Polystyrene Resin  
211.4910 Portable Grain-Handling Equipment  
211.4930 Portland Cement Manufacturing Process Emission Source  
211.4950 Portland Cement Process or Portland Cement  
Manufacturing Plant  
211.4970 Potential to Emit  
211.4990 Power Driven Fastener Coating  
211.5030 Pressure Release  
211.5050 Pressure Tank  
211.5060 Primary Product  
211.5070 Prime Coat  
211.5090 Primer Surfacer Coat  
211.5110 Primer Surfacer Operation  
211.5130 Primers  
211.5150 Printing  
211.5170 Printing Line  
211.5185 Process Emission Source  
211.5190 Process Emission Unit  
211.5210 Process Unit  
211.5230 Process Unit Shutdown  
211.5250 Process Weight Rate  
211.5270 Production Equipment Exhaust System  
211.5310 Publication Rotogravure Printing Line  
211.5330 Purged Process Fluid  
211.5350 Reactor  
211.5370 Reasonably Available Control Technology (RACT)  
211.5390 Reclamation System  
211.5410 Refiner  
211.5430 Refinery Fuel Gas  
211.5450 Refinery Fuel Gas System  
211.5470 Refinery Unit or Refinery Process Unit  
211.5480 Reflective Argent Coating  
211.5490 Refrigerated Condenser  
211.5500 Regulated Air Pollutant  
211.5510 Reid Vapor Pressure  
211.5530 Repair  
211.5550 Repair Coat  
211.5570 Repaired  
211.5590 Residual Fuel Oil  
211.5600 Resist Coat  
211.5610 Restricted Area  
211.5630 Retail Outlet  
211.5650 Ringelmann Chart  
211.5670 Roadway  
211.5690 Roll Coater  
211.5710 Roll Coating  
211.5730 Roll Printer



211.5750 Roll Printing  
211.5770 Rotogravure Printing  
211.5790 Rotogravure Printing Line  
211.5810 Safety Relief Valve  
211.5830 Sandblasting  
211.5850 Sanding Sealers  
211.5870 Screening  
211.5890 Sealer  
211.5910 Semi-Transparent Stains  
211.5930 Sensor  
211.5950 Set of Safety Relief Valves  
211.5970 Sheet Basecoat  
211.5990 Shotblasting  
211.6010 Side-Seam Spray Coat  
211.6030 Smoke  
211.6050 Smokeless Flare  
211.6060 Soft Coat  
211.6070 Solvent  
211.6090 Solvent Cleaning  
211.6110 Solvent Recovery System  
211.6130 Source  
211.6140 Specialty Coatings  
211.6150 Specialty High Gloss Catalyzed Coating  
211.6170 Specialty Leather  
211.6190 Specialty Soybean Crushing Source  
211.6210 Splash Loading  
211.6230 Stack  
211.6250 Stain Coating  
211.6270 Standard Conditions  
211.6290 Standard Cubic Foot (scf)  
211.6310 Start-Up  
211.6330 Stationary Emission Source  
211.6350 Stationary Emission Unit  
211.6370 Stationary Source  
211.6390 Stationary Storage Tank  
211.6400 Stencil Coat  
211.6410 Storage Tank or Storage Vessel  
211.6430 Styrene Devolatilizer Unit  
211.6450 Styrene Recovery Unit  
211.6470 Submerged Loading Pipe  
211.6490 Substrate  
211.6510 Sulfuric Acid Mist  
211.6530 Surface Condenser  
211.6550 Synthetic Organic Chemical or Polymer Manufacturing  
Plant  
211.6570 Tablet Coating Operation  
211.6580 Texture Coat  
211.6590 Thirty-Day Rolling Average  
211.6610 Three-Piece Can  
211.6630 Through-the-Valve Fill  
211.6650 Tooling Resin  
211.6670 Topcoat  
211.6690 Topcoat Operation  
211.6710 Touch-Up

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

APPENDIX A Rule into Section Table

APPENDIX B Section into Rule Table

AUTHORITY: Implementing Sections 9, 9.1 and 10 and authorized by  
 Section 27 and 28.5 of the Environmental Protection Act (~~Ill.  
 Rev. Stat. 1991, ch. 111<sup>1</sup>, pars. 1009, 1009.1, 1010 and 1027~~),  
 (~~P.A. 87-1213, effective September 26, 1992~~) [415 ILCS 5/9, 9.1,  
 10, 27 and 28.5 (1992)].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 201:  
 Definitions, R71-23, 4 PCB 191, filed and effective April 14,  
 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5,  
 p. 777, effective February 3, 1979; amended in R78-3 and 4, 35  
 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28,  
 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January  
 21, 1983; codified at 7 Ill. Reg. 13590; amended in R82-1 (Docket  
 A) at 10 Ill. Reg. 12624, effective July 7, 1986; amended in  
 R85-21(A) at 11 Ill. Reg. 11747, effective June 29, 1987; amended

in R86-34 at 11 Ill. Reg. 12267, effective July 10, 1987; amended in R86-39 at 11 Ill. Reg. 20804, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 787, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7284, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7621, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10862, effective June 27, 1989; amended in R89-8 at 13 Ill. Reg. 17457, effective January 1, 1990; amended in R89-16(A) at 14 Ill. Reg. 9141, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 5223, effective March 28, 1991; amended in R88-14 at 15 Ill. Reg. 7901, effective May 14, 1991; amended in R91-10 at 15 Ill. Reg. 15564, effective October 11, 1991; amended in R91-6 at 15 Ill. Reg. 15673, effective October 14, 1991; amended in R91-22 at 16 Ill. Reg. 7656, effective May 1, 1992; amended in R91-24 at 16 Ill. Reg. 13526, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16504, effective September 27, 1993; amended in R93-11 at 17 Ill. Reg. 21471, effective December 7, 1993; amended in R93-14 at 18 Ill. Reg. 1253, effective January 18, 1994; amended in \_\_\_\_\_ at \_\_\_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

#### SUBPART B: DEFINITIONS

##### Section 211.660 Automotive/Transportation Plastic Parts

"Automotive/transportation plastic parts" means the interior and exterior plastic components of automobiles, trucks, tractors, lawnmowers, and other like mobile equipment intended for primary use on land, with the exception of the following: plastic parts coated on the main (body) paint line in automobile and light duty truck assembly plants, and plastic parts coated during refinishing of automobile, trucks, tractors, lawnmowers and other like mobile equipment.

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

##### Section 211.670 Baked Coatings

"Baked coatings" means any coating which is cured or dried in an oven where the oven air temperature exceeds 90°C (194°F), or any coating which is cured in any manner that does not otherwise fit into the definition of "air dried coatings," as defined in Section 211.330 of this Part.

##### Section 211.680 Bakery Oven

"Bakery oven" means an oven used at any time for the purpose of baking yeast-leavened products, including, but not limited to, breads, rolls and buns.

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

Section 211.820 Business Machine Plastic Parts

"Business machine plastic parts" means the plastic housings and other exterior plastic components of electronic office equipment and of medical and musical equipment, including, but not limited to the following: computers, monitors, printers and keyboards, facsimile machines, copiers, microfiche readers, cellular and standard phones, and pencil sharpeners. This definition excludes internal electrical components of business machines.

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

Section 211.980 Chemical Manufacturing Process Unit

"Chemical manufacturing process unit" means the equipment assembled and connected by pipes or ducts to process raw materials and to manufacture an intended product. For purposes of 35 Ill. Adm. Code Sections 218.431 through 218.436, and Sections 219.431 through 219.436, the chemical manufacturing process unit includes reactors and their associated product separators and recovery devices; distillation units and their associated distillate receivers and recovery devices. A chemical manufacturing process unit includes, but is not limited to, any combination of pumps, compressors, agitators, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, instrumentation systems, and control devices or systems. A chemical manufacturing process unit is identified by its primary product, as defined in Section 211.5060 of this Part.

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

Section 211.1780 Distillation Unit

"Distillation unit" means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). Separation is achieved by a redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. A distillation unit includes, but is not limited to, the distillate receiver, reboiler, vacuum pump, steam jet and any associated recovery system.

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

Section 211.1880 Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Shielding Coatings

"Electromagnetic interference/radio frequency interference (EMI/RFI) coatings" means coatings used on business machine plastic housings to attenuate electromagnetic and radio frequency interference signals that would otherwise pass through the plastic housing.

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

Section 211.1900      Electrostatic Prep Coat

"Electrostatic prep coat" means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime coat, a topcoat, or other coating through the use of electrostatic application methods. An electrostatic prep coat is clearly identified as an electrostatic prep coat on its accompanying material safety data sheet.

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

Section 211.2290      Fermentation Time

"Fermentation time" means the time elapsed between adding yeast to the dough and placing the product into the oven, expressed in hours to the nearest one-tenth hour.

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

Section 211.2360      Flexible Coating

"Flexible coating" means a paint with the ability to withstand dimensional changes.

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

Section 211.2365      Flexible Operation Unit

"Flexible operation unit" means a chemical manufacturing process unit that manufactures different chemical products periodically by alternating raw materials or operating conditions.

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

Section 211.2630      Gloss Reducers

"Gloss reducers" means a low-gloss coating formulated to eliminate glare for safety purposes on interior surfaces of a vehicle, as specified in the U.S. Department of Transportation Motor Vehicle Safety Standards.

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

Section 211.4055 Non-Flexible Coating

"Non-flexible coating" means a paint without the ability to withstand dimensional changes.

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

Section 211.4740 Plastic Part

"Plastic part" means a product, or piece of a product, made from a substance that has been formed from resin through the application of pressure or heat or both.

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

Section 211.5060 Primary Product

"Primary Product" means a product of a chemical manufacturing process unit that shall be determined according to the procedures specified as follows:

- a) If a chemical manufacturing process unit produces more than one intended chemical product, the product with the greatest annual design capacity on a mass basis determines the primary product of the process.
- b) If a chemical manufacturing process unit has two more products that have the same maximum annual design capacity on a mass basis and if one of those chemicals is listed in Appendix A of 35 Ill. Adm. Code Part 218 or Part 219, then the listed chemical is considered the primary product. If more than one of the products is listed in Appendix A of 35 Ill. Adm. Code Part 218 or Part 219, then the owner or operator may designate as the primary product any of the listed chemicals.
- c) For a chemical manufacturing process unit that is designed and operated as flexible operation unit and is used predominantly to produce one or more of the listed chemicals in Appendix A of 35 Ill. Adm. Code Part 218 or Part 219, the primary product shall be determined based on the expected utilization for the five years following promulgation for existing sources and based on the expected utilization for the first five years after initial start-up for new sources.
  - 1) If the flexible operation unit produces one product for the greatest annual operating time,

then that product shall represent the primary product of the flexible operation unit.

- 2) If the flexible operation unit produces multiple chemicals equally based on operating time, then the product with the greatest annual production on a mass basis shall represent the primary product of the flexible operation unit.

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

Section 211.5480 Reflective Argent Coating

"Reflective argent coating" means a silver-colored coating that will reflect light.

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

Section 211.5600 Resist Coat

"Resist coat" means a coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part.

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

Section 211.6060 Soft Coat

"Soft coat" means any coating that provides a soft tactile feel similar to leather and a rich leather-like appearance when applied to plastic interior automotive parts and exterior business machine parts.

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

Section 211.6140 Specialty Coatings

"Specialty coatings" means, for the purposes of 35 Ill. Adm. Code 218 and 219, plastic parts coatings used for unusual job performance requirements. These products include adhesion primers, resist coatings, soft coatings, reflective coatings, electrostatic prep coatings, headlamp lens coatings, ink pad printing coatings, stencil coatings, vacuum metalizing coatings, gloss reducers, plating resist coatings, and plating sensitizer coatings.

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

Section 211.6400 Stencil Coat

"Stencil coat" means a coating that is applied over a stencil on a plastic part at a thickness of 1 mil or less of coating solids. Stencil coats are most frequently letters, numbers, or decorative designs.

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

Section 211.6580      Texture Coat

"Texture coat" means a coating applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

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

Section 211.6880      Vacuum Metallizing

"Vacuum metallizing" means a process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

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

Section 211.7400      Yeast Percentage

"Yeast percentage" means lbs of yeast per hundred lbs of total flour in the recipe, expressed as a percentage.

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

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

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

SUBPART A: GENERAL PROVISIONS

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



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

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section

- 218.121 Storage Containers
- 218.122 Loading Operations
- 218.123 Petroleum Liquid Storage Tanks
- 218.124 External Floating Roofs
- 218.125 Compliance Dates (Repealed)
- 218.126 Compliance Plan (Repealed)

SUBPART C: ORGANIC EMISSIONS FROM MISCELLANEOUS EQUIPMENT

Section

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

## SUBPART E: SOLVENT CLEANING

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

## SUBPART F: COATING OPERATIONS

Section	
218.204	Emission Limitations
218.205	Daily-Weighted Average Limitations
218.206	Solids Basis Calculation
218.207	Alternative Emission Limitations
218.208	Exemptions from Emission Limitations
218.209	Exemption from General Rule on Use of Organic Material
218.210	Compliance Schedule
218.211	Recordkeeping and Reporting
<u>218.212</u>	<u>Cross-Line Averaging to Establish Compliance for Coating Lines</u>
<u>218.213</u>	<u>Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines</u>
<u>218.214</u>	<u>Changing Compliance Methods</u>

## SUBPART G: USE OF ORGANIC MATERIAL

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

## SUBPART H: PRINTING AND PUBLISHING

Section	
218.401	Flexographic and Rotogravure Printing
218.402	Applicability
218.403	Compliance Schedule
218.404	Recordkeeping and Reporting
218.405	Heatset-Web-Offset Lithographic Printing

SUBPART Q: ~~LEAKS FROM~~ SYNTHETIC  
ORGANIC CHEMICAL AND POLYMER  
MANUFACTURING PLANT

Section	
218.421	General Requirements
218.422	Inspection Program Plan for Leaks
218.423	Inspection Program for Leaks
218.424	Repairing Leaks
218.425	Recordkeeping for Leaks

218.426	Report for Leaks
218.427	Alternative Program for Leaks
218.428	Open-Ended Valves
218.429	Standards for Control Devices
218.430	Compliance Date (Repealed)
<u>218.431</u>	<u>Applicability</u>
<u>218.432</u>	<u>Control Requirements</u>
<u>218.433</u>	<u>Performance and Testing Requirements</u>
<u>218.434</u>	<u>Monitoring Requirements</u>
<u>218.435</u>	<u>Recordkeeping and Reporting Requirements</u>
<u>218.436</u>	<u>Compliance Date</u>

SUBPART R: PETROLEUM REFINING AND  
RELATED INDUSTRIES; ASPHALT MATERIALS

Section	
218.441	Petroleum Refinery Waste Gas Disposal
218.442	Vacuum Producing Systems
218.443	Wastewater (Oil/Water) Separator
218.444	Process Unit Turnarounds
218.445	Leaks: General Requirements
218.446	Monitoring Program Plan for Leaks
218.447	Monitoring Program for Leaks
218.448	Recordkeeping for Leaks
218.449	Reporting for Leaks
218.450	Alternative Program for Leaks
218.451	Sealing Device Requirements
218.452	Compliance Schedule for Leaks
218.453	Compliance Dates (Repealed)

SUBPART S: RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS

Section	
218.461	Manufacture of Pneumatic Rubber Tires
218.462	Green Tire Spraying Operations
218.463	Alternative Emission Reduction Systems
218.464	Emission Testing
218.465	Compliance Dates (Repealed)
218.466	Compliance Plan (Repealed)

SUBPART T: PHARMACEUTICAL MANUFACTURING

Section	
218.480	Applicability
218.481	Control of Reactors, Distillation Units, Crystallizers, Centrifuges and Vacuum Dryers
218.482	Control of Air Dryers, Production Equipment Exhaust Systems and Filters
218.483	Material Storage and Transfer
218.484	In-Process Tanks
218.485	Leaks
218.486	Other Emission Units
218.487	Testing
218.488	Monitoring for Air Pollution Control Equipment

## 218.489 Recordkeeping for Air Pollution Control Equipment

## SUBPART V: AIR OXIDATION PROCESSES

## Section

- 218.521 Definitions (Repealed)
- 218.525 Emission Limitations for Air Oxidation Processes
- 218.526 Testing and Monitoring
- 218.527 Compliance Date (Repealed)

## SUBPART W: AGRICULTURE

## Section

- 218.541 Pesticide Exception

## SUBPART X: CONSTRUCTION

## Section

- 218.561 Architectural Coatings
- 218.562 Paving Operations
- 218.563 Cutback Asphalt

## SUBPART Y: GASOLINE DISTRIBUTION

## Section

- 218.581 Bulk Gasoline Plants
- 218.582 Bulk Gasoline Terminals
- 218.583 Gasoline Dispensing Operations - Storage Tank Filling Operations
- 218.584 Gasoline Delivery Vessels
- 218.585 Gasoline Volatility Standards
- 218.586 Gasoline Dispensing Operations - Motor Vehicle Fueling Operations

## SUBPART Z: DRY CLEANERS

## Section

- 218.601 Perchloroethylene Dry Cleaners
- 218.602 Applicability
- 218.603 Leaks
- 218.604 Compliance Dates (Repealed)
- 218.605 Compliance Plan (Repealed)
- 218.606 Exception to Compliance Plan (Repealed)
- 218.607 Standards for Petroleum Solvent Dry Cleaners
- 218.608 Operating Practices for Petroleum Solvent Dry Cleaners
- 218.609 Program for Inspection and Repair of Leaks
- 218.610 Testing and Monitoring
- 218.611 Applicability for Petroleum Solvent Dry Cleaners
- 218.612 Compliance Dates (Repealed)
- 218.613 Compliance Plan (Repealed)

## SUBPART AA: PAINT AND INK MANUFACTURING

## Section

218.620 Applicability  
 218.621 Exemption for Waterbase Material and Heatset-Offset Ink  
 218.623 Permit Conditions (Repealed)  
 218.624 Open Top Mills, Tanks, Vats or Vessels  
 218.625 Grinding Mills  
 218.626 Storage Tanks  
 218.628 Leaks  
 218.630 Clean Up  
 218.636 Compliance Schedule  
 218.637 Recordkeeping and Reporting

SUBPART BB: POLYSTYRENE PLANTS

Section  
 218.640 Applicability  
 218.642 Emissions Limitation at Polystyrene Plants  
 218.644 Emissions Testing

SUBPART CC: POLYESTER RESIN PRODUCT MANUFACTURING PROCESS

Section  
 218.660 Applicability  
 218.666 Control Requirements  
 218.667 Compliance Schedule  
 218.668 Testing  
 218.670 Recordkeeping and Reporting for Exempt Emission Units  
 218.672 Recordkeeping and Reporting for Subject Emission Units

SUBPART DD: AEROSOL CAN FILLING

Section  
 218.680 Applicability  
 218.686 Control Requirements  
 218.688 Testing  
 218.690 Recordkeeping and Reporting for Exempt Emission Units  
 218.692 Recordkeeping and Reporting for Subject Emission Units

SUBPART FF: BAKERY OVENS

Section  
218.720 Applicability  
218.722 Control Requirements  
218.726 Testing  
218.727 Monitoring  
218.728 Recordkeeping and Reporting  
218.729 Compliance Date  
218.730 Certification  
 218.875 Applicability of Subpart BB (Renumbered)  
 218.877 Emissions Limitation at Polystyrene Plants (Renumbered)  
 218.879 Compliance Date (Repealed)  
 218.881 Compliance Plan (Repealed)  
 218.883 Special Requirements for Compliance Plan (Repealed)  
 218.886 Emissions Testing (Renumbered)

SUBPART PP: MISCELLANEOUS FABRICATED PRODUCT MANUFACTURING PROCESSES

Section  
 218.920 Applicability  
 218.923 Permit Conditions (Repealed)  
 218.926 Control Requirements  
 218.927 Compliance Schedule  
 218.928 Testing

SUBPART QQ: MISCELLANEOUS FORMULATION MANUFACTURING PROCESSES

Section  
 218.940 Applicability  
 218.943 Permit Conditions (Repealed)  
 218.946 Control Requirements  
 218.947 Compliance Schedule  
 218.948 Testing

SUBPART RR: MISCELLANEOUS ORGANIC CHEMICAL MANUFACTURING PROCESSES

Section  
 218.960 Applicability  
 218.963 Permit Conditions (Repealed)  
 218.966 Control Requirements  
 218.967 Compliance Schedule  
 218.968 Testing

SUBPART TT: OTHER EMISSION UNITS

Section  
 218.980 Applicability  
 218.983 Permit Conditions (Repealed)  
 218.986 Control Requirements  
 218.987 Compliance Schedule  
 218.988 Testing

SUBPART UU: RECORDKEEPING AND REPORTING

Section  
 218.990 Exempt Emission Units  
 218.991 Subject Emission Units

Section 218.Appendix A: List of Chemicals Defining Synthetic Organic Chemical and Polymer Manufacturing

Section 218.Appendix B: VOM Measurement Techniques for Capture Efficiency

Section 218.Appendix C: Reference Methods and Procedures

Section 218.Appendix D: Coefficients for the Total Resource Effectiveness Index (TRE) Equation

Section 218.Appendix G: TRE Index Measurements for SOCFI Reactors and Distillation Units

Section 218.Appendix H: Baseline VOM Content Limitations for Subpart F, Section 218.212 Cross-Line Averaging

AUTHORITY: Implementing Section 10 and authorized by Section 28.5 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, par. 1010) (P.A. 87-1213, effective September 26, 1992) [415 ILCS 5/10 and 28.5].

SOURCE: Adopted at R91-7 at 15 Ill. Reg. 12231, effective August 16, 1991; amended in R91-23 at 16 Ill. Reg. 13564, effective August 24, 1992; amended in R91-28 and R91-30 at 16 Ill. Reg. 13864, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16636, effective September 27, 1993; amended in R93-14 at 18 Ill. Reg. at 1945, effective January 24, 1994; amended in \_\_\_\_\_ at \_\_\_\_\_ Ill. Reg. at \_\_\_\_\_, effective \_\_\_\_\_.

SUBPART A: GENERAL PROVISIONS

Section 218.106 Compliance Dates

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

218.980(a) of this Part on or by the effective date of this subsection is required to comply with all compliance dates or schedules found in Sections 218.106(a) or 218.106(b) above, as applicable.

- e) Any owner or operator of a source with an emission unit subject to the requirements of Section 218.204(m)(2) or (m)(3) of this Part shall comply with those requirements by March 25, 1995.

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

SUBPART F: COATING OPERATIONS

Section 218.204 Emission Limitations

Except as provided in Sections 218.205, 218.207 and ~~218.208~~ 218.208 and ~~218.212~~ 218.212 of this Part ~~Subpart~~, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. Compliance with the emission limitations marked with an asterisk in this Section is required on and after March 15, 1996. Compliance with emission limitations not marked with an asterisk is required until March 15, 1996. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with this Subpart must be demonstrated through the applicable coating analysis test methods and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(c) of this Part ~~Subpart~~ except where noted. (Note: The equation presented in Section 218.206 of this Part shall be used to calculate emission limitations for determining compliance by add-on controls, credits for transfer efficiency, emissions trades and cross-line averaging.) The emission limitations are as follows:

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

(Note: The primer surface coat limitation is in units of kg (lbs) of VOM per 1 (gal) of coating solids deposited. Compliance with the limitation



shall be based on the daily-weighted average from an entire primer surfacer operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 218.105(b) and the recordkeeping and reporting requirements specified in Section 218.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 218.205 does not apply to the primer surface limitation.)

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

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

		kg/l	lb/gal
4)	Final repair coat	0.58	(4.8)
		<u>0.58*</u>	<u>(4.8)*</u>
b)	Can Coating	kg/l	lb/gal
1)	Sheet basecoat and overvarnish	0.34	(2.8)
		<u>0.26*</u>	<u>(2.2)*</u>
2)	Exterior basecoat and overvarnish	0.34	(2.8)
		<u>0.25*</u>	<u>(2.1)*</u>
3)	Interior body spray coat	<del>0.51</del>	<del>(4.2)</del>
	<u>A) Two piece</u>	<u>0.51</u>	<u>(4.2)</u>
		<u>0.44*</u>	<u>(3.7)*</u>
	<u>B) Three piece</u>	<u>0.51</u>	<u>(4.2)</u>

		<u>0.51*</u>	<u>(4.2)*</u>
4)	Exterior end coat	0.51	(4.2)
		<u>0.51*</u>	<u>(4.2)*</u>
5)	Side seam spray coat	0.66	(5.5)
		<u>0.66*</u>	<u>(5.5)*</u>
6)	End sealing compound coat	0.44	(3.7)
		<u>0.44*</u>	<u>(3.7)*</u>
		kg/l	lb/gal
c)	Paper Coating	0.35	(2.9)
		<u>0.28*</u>	<u>(2.3)*</u>

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which printing is performed if the paper coating line complies with the emissions limitations in Subpart H: Printing and Publishing, Section 218.401 of this Part.)

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

(Note: The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 l (1 quart) in any one rolling eight-hour period.)

kg/l                      lb/gal

i)	Magnet Wire Coating	0.20 <u>0.20*</u>	(1.7) <u>(1.7)*</u>
j)	Miscellaneous Metal Parts and Products Coating		
1)	Clear coating	0.52 <u>0.52*</u>	(4.3) <u>(4.3)*</u>
<del>2)</del>	<del>Air dried coating</del>	<del>0.42</del>	<del>(3.5)</del>
<del>32)</del>	<del>Extreme performance coating</del>	<del>0.42</del>	<del>(3.5)</del>
	<u>A) Air dried</u>	<u>0.42</u> <u>0.42*</u>	<u>(3.5)</u> <u>(3.5)*</u>
	<u>B) Baked</u>	<u>0.42</u> <u>0.36*</u>	<u>(3.5)</u> <u>(3.0)*</u>
<del>43)</del>	<del>Steel pail and drum interior coating</del>	<del>0.52</del> <del>0.52*</del>	<del>(4.3)</del> <del>(4.3)*</del>
<del>54)</del>	<del>All other coatings</del>	<del>0.36</del>	<del>(3.0)</del>
	<u>A) Air Dried</u>	<u>0.42</u> <u>0.34*</u>	<u>(3.5)</u> <u>(2.8)*</u>
	<u>B) Baked</u>	<u>0.36</u> <u>0.28*</u>	<u>(3.0)</u> <u>(2.3)*</u>
k)	Heavy Off-Highway Vehicle Products Coating	kg/l	lb/gal
1)	Extreme performance prime coat	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
2)	Extreme performance top-coat (air dried)	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
3)	Final repair coat (air dried)	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
4)	All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j) above.		
l)	Wood Furniture Coating	kg/l	lb/gal
1)	Clear topcoat	0.67 <u>0.67*</u>	(5.6) <u>(5.6)*</u>
2)	Opaque stain	0.56 <u>0.56*</u>	(4.7) <u>(4.7)*</u>

3)	Pigmented coat	0.60 <u>0.60*</u>	(5.0) <u>(5.0)*</u>
4)	Repair coat	0.67 <u>0.67*</u>	(5.6) <u>(5.6)*</u>
5)	Sealer	0.67 <u>0.67*</u>	(5.6) <u>(5.6)*</u>
6)	Semi-transparent stain	0.79 <u>0.79*</u>	(6.6) <u>(6.6)*</u>
7)	Wash coat	0.73 <u>0.73*</u>	(6.1) <u>(6.1)*</u>

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

m) Existing Diesel-Electric Locomotive Coating Lines in Cook County

	kg/l	lb/gal
1) Extreme performance prime coat	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
2) Extreme performance top-coat (air dried)	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
3) Final repair coat (air dried)	0.42 <u>0.42*</u>	(3.5) <u>(3.5)*</u>
4) High-temperature aluminum coating	0.72 <u>0.72*</u>	(6.0) <u>(6.0)*</u>
5) All other coatings	0.36 <u>0.36*</u>	(3.0) <u>(3.0)*</u>

n) Plastic Parts Coating: Automotive/Transportation

	<u>kg/l</u>	<u>lb/gal</u>
<u>1) Interiors</u>		
<u>A) Baked</u>		
<u>i) Color coat</u>	<u>0.49*</u>	<u>(4.1)*</u>
<u>ii) Primer</u>	<u>0.46*</u>	<u>(3.8)*</u>
<u>B) Air Dried</u>		
<u>i) Color coat</u>	<u>0.38*</u>	<u>(3.2)*</u>
<u>ii) Primer</u>	<u>0.42*</u>	<u>(3.5)*</u>
<u>2) Exteriors (flexible and non-flexible)</u>		
<u>A) Baked</u>		
<u>i) Primer</u>	<u>0.60*</u>	<u>(5.0)*</u>
<u>ii) Primer non-flexible</u>	<u>0.54*</u>	<u>(4.5)*</u>
<u>iii) Clear coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
<u>iv) Color coat</u>	<u>0.55*</u>	<u>(4.6)*</u>
<u>B) Air Dried</u>		
<u>i) Primer</u>	<u>0.66*</u>	<u>(5.5)*</u>
<u>ii) Clear coat</u>	<u>0.54*</u>	<u>(4.5)*</u>
<u>iii) Color coat (red &amp; black)</u>	<u>0.67*</u>	<u>(5.6)*</u>
<u>iv) Color coat (others)</u>	<u>0.61*</u>	<u>(5.1)*</u>
<u>3) Specialty</u>		
<u>A) Vacuum metallizing basecoats, texture basecoats</u>	<u>0.66*</u>	<u>(5.5)*</u>
<u>B) Black coatings, reflective argent coatings, air bag cover coatings, and soft coatings</u>	<u>0.71*</u>	<u>(5.9)*</u>

C)	<u>Gloss reducers, vacuum metallizing topcoats, and texture topcoats</u>	<u>0.77*</u>	<u>(6.4)*</u>
D)	<u>Stencil coatings, adhesion primers, ink pad coatings, electrostatic prep coatings, and resist coatings</u>	<u>0.82*</u>	<u>(6.8)*</u>
E)	<u>Head lamp lens coatings</u>	<u>0.89*</u>	<u>(7.4)*</u>

o) Plastic Parts Coating: Business Machine

		<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Primer</u>	<u>0.14*</u>	<u>(1.2)*</u>
2)	<u>Color coat (non-texture coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
3)	<u>Color coat (texture coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
4)	<u>Electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings</u>	<u>0.48*</u>	<u>(4.0)*</u>
5)	<u>Specialty Coatings</u>		
A)	<u>Soft coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
B)	<u>Plating resist</u>	<u>0.71*</u>	<u>(5.9)*</u>
C)	<u>Plating sensitizer</u>	<u>0.85*</u>	<u>(7.1)*</u>

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

Section 218.205 Daily-Weighted Average Limitations

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

- a) No owner or operator of a coating line subject to only one of the limitations from among Section 218.204(a)(1), (a)(4), (c), (d), (e), (f), ~~(g)~~, ~~(h)~~, or (i) of this ~~Part~~Subpart shall apply coatings on any such coating line, during any day, whose daily-weighted average VOM content exceeds the emission limitation to which the coatings are subject.
- b) No owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 218.204(j) of this ~~Part~~Subpart shall apply coatings to miscellaneous metal parts or products on the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~below of this Section~~ are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(j) during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(j) ~~above of this~~ Subpart, during the same day, the owner or operator shall have a site-specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.
- c) No owner or operator of a can coating line subject to the limitations of Section 218.204(b) of this ~~Part~~Subpart shall operate the subject coating line using a coating with a VOM content in excess of the limitations specified in Section 218.204(b) of this ~~Part~~Subpart unless all of the following requirements are met:
- 1) An alternative daily emission limitation shall be determined for the can coating operation, i.e. for all of the can coating lines at the source, according to subsection (c)(2) ~~below of this~~ Section. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation.

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

where:

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

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

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

where:

- $A_d$  = The VOM emissions allowed for the day in units of kg/day (lbs/day);
- $i$  = Subscript denoting a specific coating applied;
- $n$  = Total number of surface coatings applied in the can coating operation;
- $C_i$  = The VOM content of each surface coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM);



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

- d) No owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 218.204(k) of this PartSubpart shall apply coatings to heavy off-highway vehicle products on the subject coating line unless the requirements of subsection (d)(1) or (d)(2) below of this Section are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(k) above of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(k) above of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.
- e) No owner or operator of a wood furniture coating line subject to the limitations of Section 218.204(l) of this PartSubpart shall apply coatings to wood furniture on the subject coating line unless the requirements of

subsection (e)(1) or subsection (e)(2) ~~below of this Section~~, in addition to the requirements specified in the note to Section 218.204(1) of this ~~Part~~Subpart, are met.

- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(1) ~~above of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.67 kg/l [5.6 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(1) ~~above of this Subpart~~, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.
- f) No owner or operator of an existing diesel-electric locomotive coating line in Cook County, subject to the limitations of Section 218.204(m) of this ~~Part~~Subpart shall apply coatings to diesel-electric locomotives on the subject coating line unless the requirements of subsection (f)(1) or (f)(2) of this Section are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(m) ~~above of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(m) ~~above of this Subpart~~, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

g) No owner or operator of a plastic parts coating line, subject to the limitations of Section 218.204(n) or (o) of this Subpart shall apply coatings to business machine or automotive/transportation plastic parts on the subject coating line unless the requirements of subsection (g)(1) or (g)(2) of this Section are met:

1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(n) or (o) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(n) or (o) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

h) No owner or operator of a metal furniture coating line, subject to the limitations of Section 218.204(g) of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (h)(1) or (h)(2) of this Section are met:

1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(g) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used; or

2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(g) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

i) No owner or operator of a large appliance coating line, subject to the limitations of Section 218.204(h) of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (i)(1) or (i)(2) of this Section are met:

1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 218.204(h) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or

2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 218.204(h) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.

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

Section 218.207 Alternative Emission Limitations

a) Any owner or operator of a coating line subject to Section 218.204 of this ~~Part~~Subpart may comply with this Section, rather than with Section 218.204 of this ~~Part~~Subpart, if a capture system and control device are operated at all times the coating line is in operation and the owner or operator demonstrates compliance with subsection (c), (d), (e), (f), (g), ~~or (h), (i), (j), or (k)~~ of this Section (depending upon the source category) through the applicable coating analysis and capture system and control device efficiency test methods and procedures specified in Section 218.105 of this Part and the recordkeeping and reporting requirements specified in Section 218.211(e) of this ~~Part~~Subpart; and the control device is equipped with the applicable monitoring equipment specified in Section 218.105(d) of this Part and the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use. A capture system and control device, which does not demonstrate compliance with subsection (c), (d), (e), (f), (g), ~~or (h), (i), (j), or (k)~~ of this Section may be used as an alternative to compliance with Section 218.204 of this

~~Part~~Subpart only if the alternative is approved by the Agency and approved by the USEPA as a SIP revision.

b) Alternative Add-On Control Methodologies

- 1) The coating line is equipped with a capture system and control device that provides 81 percent reduction in the overall emissions of VOM from the coating line and the control device has a 90 percent efficiency, or
- 2) The system used to control VOM from the coating line is demonstrated to have an overall efficiency sufficient to limit VOM emissions to no more than what is allowed under Section 218.204 of this ~~Part~~Subpart. Use of any control system other than an afterburner, carbon adsorption, condensation, or absorption scrubber system can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. The use of transfer efficiency credits can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. Baseline transfer efficiencies and transfer efficiency test methods must be approved by the Agency and the USEPA.

Such overall efficiency is to be determined as follows:

- A) Obtain the emission limitation from the appropriate subsection in Section 218.204 of this ~~Part~~Subpart;
  - B) Calculate "S" according to the equation in Section 218.206 of this ~~Part~~Subpart;
  - C) Calculate the overall efficiency required according to Section 218.105(e) of this Part. For the purposes of calculating this value, according to the equation in Section 218.105(e)(2) of this Part,  $VOM_1$  is equal to the value of "S" as determined above in subsection (b)(2)(B) of this Section.
- c) No owner or operator of a coating line subject to only one of the emission limitations from among Section 218.204(a)(1), (a)(4), (c), (d), (e), (f), ~~(g)~~, ~~(h)~~ or (i) of this ~~Part~~Subpart and equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above~~of this Section are met. No owner or operator of a coating line subject to Section 218.204(a)(2) or 218.204(a)(3) and equipped with a capture system and control device shall operate the

coating line unless the owner or operator demonstrates compliance with such limitation in accordance with the topcoat protocol referenced in Section 218.105(b).

- d) No owner or operator of a miscellaneous metal parts and products coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(j) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met.
- e) No owner or operator of a heavy off-highway vehicle products coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(k) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met.
- f) No owner or operator of an existing diesel-electric locomotive coating line in Cook County which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(m) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met.
- g) No owner or operator of a wood furniture coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(l) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.67 kg/l [5.6 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met. If compliance is achieved by meeting the requirements in subsection (b)(2) of this ~~Part~~Section, then the provisions in the note to Section 218.204(l) of this ~~Part~~Subpart must also be met.
- h) No owner or operator of a can coating line which is equipped with a capture system and control device shall operate the subject coating line unless the

requirements in subsection (h)(1) or (h)(2) ~~below~~of this Section are met.

- 1) An alternative daily emission limitation shall be determined for the can coating operation, i.e. for all of the can coating lines at the source, according to Section 218.205(c)(2) of this ~~Part~~Subpart. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation:

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

where:

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

$i$  = Subscript denoting the specific coating applied;

$n$  = Total number of surface coatings as applied in the can coating operation;

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

$C_i$  = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM) and

$F_i$  = Fraction, by weight, of VOM emissions from the surface coating, reduced or prevented from being emitted to the ambient air. This is the overall efficiency of the capture system and control device.

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

coating line and the control device has a 90 percent efficiency.

- i) No owner or operator of a plastic parts coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(n) or (o) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- j) No owner or operator of a metal furniture coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(g) of this Subpart (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.
- k) No owner or operator of a large appliance coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 218.204(h) of this Subpart (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.

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

#### Section 218.208 Exemptions From Emission Limitations

- a) Exemptions for all coating categories except wood furniture coating. The limitations of this Subpart shall not apply to coating lines within a source, that otherwise would be subject to the same subsection of Section 218.204 (because they belong to the same coating category, e.g. can coating) provided that combined actual emissions of VOM from all lines at the source subject to that subsection never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices. (For example, can coating lines within a source would not be subject to the limitations of Section 218.204(b) of this Part~~Subpart~~ if the combined actual emissions of VOM from the can coating lines never exceed 6.8 kg/day (15 lbs/day) before the application of capture systems and control



devices.) Volatile organic material emissions from heavy off-highway vehicle products coating lines must be combined with VOM emissions from miscellaneous metal parts and products coating lines to determine applicability. Any owner or operator of a coating source shall comply with the applicable coating analysis test methods and procedures specified in Section 218.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(a) of this ~~Part~~Subpart if total VOM emissions from the subject coating lines are always less than or equal to 6.8 kg/day (15 lbs/day) before the application of capture systems and control devices and, therefore, are not subject to the limitations of Section 218.204 of this ~~Part~~Subpart. Once a category of coating lines at a source is subject to the limitations in Section 218.204~~7~~ of this ~~Part~~Subpart the coating lines are always subject to the limitations in Section 218.204 of this ~~Part~~Subpart.

b) Applicability for wood furniture coating

- 1) The limitations of this Subpart shall apply to a source's wood furniture coating lines if the source contains process emission units, not regulated by Subparts B, E, F (excluding Section 218.204(1) of this ~~Part~~Subpart), H (excluding Section 218.405 of this Part), Q, R, S, T (excluding Section 218.486 of this Part), V, X, Y, or BB of this Part, which as a group both:
  - A) Have maximum theoretical emissions of 91 Mg (100 tons) or more per calendar year of VOM if no air pollution control equipment were used, and
  - B) Are not limited to less than 91 Mg (100 tons) of VOM per calendar year if no air pollution control equipment were used, through production or capacity limitations contained in a federally enforceable permit or SIP revision.
- 2) The limitations of this Subpart shall apply to a source's wood furniture coating lines, on and after March 15, 1996, if the source contains process emission units, which as a group, have a potential to emit 22.7 Mg (25 tons) or more of VOM per calendar year and have not limited emissions to less than 22.7 Mg (25 tons) of VOM per calendar year through production or capacity limitations contained in a federally enforceable operating permit or SIP revision, and which:

- A) Are not regulated by Subparts B, E, F (excluding Section 218.204(1) of this Subpart), H, Q, R, S, T (excluding Section 218.486 of this Part), V, X, Y, Z or BB of this Part; and
- B) Are not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- 23) If a source ceases to fulfill the criteria of subsections (b)(1) or (b)(2) of this Section, the limitations of Section 218.204(1) of this ~~Part~~Subpart shall continue to apply to any wood furniture coating line which was ever subject to the limitations of Section 218.204(1) of this ~~Part~~Subpart.
- 34) For the purposes of subsection (b) of this Section, an emission unit shall be considered to be regulated by a Subpart if it is subject to the limitations of that Subpart. An emission unit is not considered regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.
- 45) Any owner or operator of a wood furniture coating line to which the limitations of this Subpart are not applicable due to the criteria in subsection (b) of this Section shall, upon request by the Agency or the USEPA, submit records to the Agency and the USEPA within 30 calendar days from the date of the request that document that the coating line is exempt from the limitations of this Subpart.

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

Section 218.210 Compliance Schedule

Every owner or operator of a coating line (of a type included within Section 218.204 of this Subpart) shall comply with the requirements of Section 218.204, 218.205, 218.207 or 218.208 and Section 218.211 ~~of this Part~~ or Sections 218.212 and 218.213 of this Subpart in accordance with the appropriate compliance

schedule as specified in subsection (a), (b), (c), ~~(d)~~, (e) or (f) below:

- a) No owner or operator of a coating line which is exempt from the limitations of Section 218.204 of this ~~Part~~Subpart because of the criteria in Section 218.208(a) of this ~~Part~~Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Section 218.211(b) of this ~~Part~~Subpart. Wood furniture coating lines are not subject to Section 218.211(b) of this ~~Part~~Subpart.
- b) No owner or operator of a coating line complying by means of Section 218.204 of this ~~Part~~Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.204 and 218.211(c) of this ~~Part~~Subpart.
- c) No owner or operator of a coating line complying by means of Section 218.205 of this ~~Part~~Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.205 and 218.211(d) of this ~~Part~~Subpart.
- d) No owner or operator of a coating line complying by means of Section 218.207 of this ~~Part~~Subpart shall operate said coating line on or after a date consistent with Section 218.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 218.207 and 218.211(e) of this ~~Part~~Subpart.
- e) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 218.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 218.204, 218.205 or 218.207 of this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with, respectively, the applicable requirements in Section 218.204, or the alternative control options in Sections 218.205 or 218.207 and the requirements of Section 218.211.
- f) No owner or operator of a coating line subject to one or more of the emission limitations contained in Section 218.204 of this Subpart on or after March 15, 1996, choosing to comply by means of Section 218.212 of

this Subpart, shall operate said coating line on or after March 15, 1996, unless the owner or operator complies with and continues to comply with the requirements of Sections 218.212 and 218.213 of this Subpart.

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

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

- a) On and after March 15, 1996, any owner or operator of a coating line subject to the limitations set forth in Section 218.204 of this Subpart, and with coating lines in operation prior to January 1, 1991 ("pre-existing coating lines"), may, for pre-existing coating lines only, elect to comply with the requirements of this Section, rather than complying with the applicable emission limitations set forth in Section 218.204, if an operational change of the type described below has been made after January 1, 1991, to one or more pre-existing coating lines at the source. An operational change occurs when a pre-existing coating line is replaced with a line using lower VOM coating for the same purpose as the replaced line ("replacement line"). A source electing to rely on this Section to demonstrate compliance with the requirements of this Subpart shall operate pursuant to federally enforceable permit conditions approved by the Agency and USEPA.
- b) An owner or operator of pre-existing coating lines subject to a VOM content limitation in Section 218.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart must establish, by use of the equations in subsection (c) of this Section, that the calculated actual daily VOM emissions from all participating coating lines, as defined below, are less than the calculated daily allowable VOM emissions from the same group of coating lines. For any pre-existing coating line to be aggregated for the purposes of Section 218.212, 218.213, or 218.214 of this Subpart ("participating coating lines"), the source must establish that:
- 1) All coatings applied on the participating coating line shall, at all times, have a VOM content less than or equal to the applicable VOM content limitation for such coating listed in Appendix H of this Part; and
  - 2) On the date the source elects to rely on this Section to demonstrate compliance with this Subpart, all coatings applied on the participating

coating line are not already in compliance with the VOM content limitation for such coating effective on or after March 15, 1996; or the participating coating line is a replacement line, as defined in subsection (a) of this Section with an operational change occurring on or after January 1, 1991.

c) To demonstrate compliance with this Section, a source shall establish the following:

1) An alternative daily emission limitation shall be determined for all participating coating lines at the source according to subsection (c)(2) of this Section. Actual daily emissions from participating coating lines ( $E_d$ ) shall never exceed the alternative daily emission limitation ( $A_d$ ) and shall be calculated by use of the following equation:

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

where:

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

$i$  = Subscript denoting a specific coating applied;

$n$  = Total number of coatings applied by all participating coating lines at the source;

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

$C_i$  = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

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

$$A_d = A_i + A_p$$

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

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

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

where:

$A_1$  = The VOM emissions allowed for the day in units of kg/day (lbs/day);

$i$  = Subscript denoting a specific coating applied;

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

$C_i$  = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM);

$D_i$  = The density of VOM in each coating applied. For the purposes of calculating  $A_1$ , the density is 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

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

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

B) The portion of the alternative daily emission limitation for coating operations at a source using powdered coating ( $A_p$ ) shall be

determined for all such participating powder coating lines at the source on a daily basis as follows:

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

where:

A<sub>p</sub> = The VOM emissions allowed for the day in units of kg/day (lbs/day);

h = Subscript denoting a specific powder coating line;

j = Subscript denoting a specific powder coating applied;

m = Total number of participating powder coating lines;

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

D<sub>j</sub> = The assumed density of VOM in liquid coating, 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

V<sub>j</sub> = Volume of each powder coating consumed for the day in units of l (gal) of coating; and

L<sub>j</sub> = The VOM emission limitation for each coating applied, as specified in Section 218.204 of this Subpart, in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM); and

K = A constant for each individual coating line representing the ratio of the volume of coating solids consumed on the liquid coating system which has been replaced to the volume of powder coating consumed on the replacement line to accomplish the same coating job. This value shall be determined by the source based on tests conducted and records maintained pursuant to the requirements of Section 218.213 of this Subpart demonstrating the amount of coating

solids consumed as both liquid and powder. Test methods and recordkeeping requirements shall be approved by the Agency and USEPA and shall be contained in the source's operating permit as federally enforceable permit conditions, subject to the following restrictions:

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

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

Section 218.213 Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines

Any owner or operator of a coating line that elects to comply by means of Section 218.212 of this Subpart shall establish the following:

- a) By the date consistent with Section 218.210(f) of this Subpart, or upon initial start-up of a new coating line replacing a pre-existing coating line, as defined in Section 218.212 of this Subpart, or upon changing the method of compliance for a pre-existing coating line from the requirements of Section 218.204 or Section 218.207 of this Subpart to the requirements of Section 218.212 of this Subpart, the owner or operator of the source shall certify to the Agency that each participating coating line, as determined in accordance with Section 218.212 of this Subpart, will be in compliance with Section 218.212 of this Subpart on and after a date consistent with Section 218.210(f) of this Subpart, or on and after the initial start-up date of such participating coating lines. Such certification shall also include:
  - 1) The name and identification number of each participating coating line;
  - 2) The name and identification number of each coating as applied on each participating coating line;
  - 3) The weight of VOM per volume of each coating and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each participating coating line;



- 4) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each participating coating line;
  - 5) The method by which the owner or operator will create and maintain records each day as required in subsection (b) of this Section;
  - 6) An example of the format in which the records required in subsection (b) of this Section will be kept;
  - 7) A statement that all coatings used on participating coating lines have a VOM content less than or equal to the applicable VOM limitation for such coating set forth within Appendix H of this Part, and that all lines either:
    - A) Underwent a change in operations incorporating a lower VOM coating on each applicable participating coating line after the date of January 1, 1991; or
    - B) Are not in compliance and continued compliance with the coating limitations in Section 218.204 of this Subpart, compliance with which is required on or after March 15, 1996.
  - 8) The method by which the owner or operator has calculated K, for the equation contained in Section 218.212(c)(2)(B) of this Subpart, if applicable.
- b) On and after a date consistent with Section 218.210(f) of this Subpart, or on and after the initial start-up date, the owner or operator of a source electing to comply with the requirements of this Subpart by means of Section 218.212 of this Subpart shall collect and record the following information on a daily basis for each participating coating line and maintain the information at the source for a period of three years:
- 1) The name and identification number of each coating as applied on each participating coating line;
  - 2) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied on each participating coating line on a daily basis; and

- 3) The daily weighted average VOM content of all coatings as applied on each coating line as defined at 35 Ill. Adm. Code 211.1230.
- c) On and after a date consistent with Section 218.210(f) of this Subpart, the owner or operator of participating coating lines shall:
- 1) Notify the Agency within 30 days following an occurrence of a violation of Section 218.212 of this Subpart; and
  - 2) Send to the Agency any record showing a violation of Section 218.212 of this Subpart within 30 days following the occurrence of a violation.

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

Section 218.214            Changing Compliance Methods

- a) At least 30 calendar days before changing the method of compliance with this Subpart from Section 218.212 of this Subpart to Section 218.204 or Section 218.207 of this Subpart, the owner or operator of a source relying on Section 218.212 to demonstrate compliance with this Subpart for one or more pre-existing coating lines shall comply with all requirements of Section 218.211 (c)(1) or (e)(1) of this Subpart, respectively.
- b) Upon changing the method of compliance with this Subpart from Section 218.212 to Section 218.204 or Section 218.207 of this Subpart, the owner or operator of a source shall comply with the requirements of Section 218.211(c) or (e) of this Subpart, respectively.
- c) The owner or operator shall certify that all remaining participating coating lines, if any, comply and continue to comply with the requirements of Section 218.212 of this Subpart.

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

SUBPART Q: ~~LEAKS FROM SYNTHETIC ORGANIC CHEMICAL AND POLYMER~~  
MANUFACTURING PLANT

Section 218.431            Applicability

- a) The requirements of this Subpart shall apply to every owner or operator of any chemical manufacturing process unit that manufactures, as a primary product, one or more of the chemicals listed in Appendix A of this Part

and that chemical manufacturing process unit causes or allows any reactor or distillation unit, either individually or in tandem, to discharge one or more process vent streams either directly to the atmosphere or to a recovery system.

- b) Notwithstanding subsection (a) of this Section, the control requirements set forth within Section 218.432 of this Subpart shall not apply to the following:
- 1) Any process vent stream with a total resource effectiveness (TRE) index value greater than 1.0. However, such process vent stream remains subject to the performance testing requirements contained in Section 218.433 of this Subpart and the reporting and recordkeeping requirements contained in Section 218.435 of this Subpart;
  - 2) Any reactor or distillation unit that is designed and operated as a batch operation;
  - 3) Any reactor or distillation unit that is part of a polymer manufacturing operation;
  - 4) Any reactor or distillation unit that is part of the chemical manufacturing process unit with a total design capacity of less than 1 gigagram (1,100 tons) per year for all chemicals produced, as a primary product, within that process unit. However, such operations remain subject to the reporting and recordkeeping requirements contained in Section 218.435(d) of this Subpart; or
  - 5) Any vent stream with a flow rate less than 0.0085 scm/min or a total VOM concentration of less than 500 ppmv, less methane and ethane, as measured by Method 18, or a concentration of VOM of less than 250 ppmv as measured by Method 25A. However, such operations remain subject to the performance testing requirement listed in Section 218.433 of this Subpart, as well as the reporting and recordkeeping requirements contained in Section 218.435 of this Subpart.
  - 6) Any reactor or distillation unit included within an Early Reduction Program, as specified in 40 CFR 63, and published in 59 Fed. Reg. 61970 (October 22, 1993), evidenced by a timely enforceable commitment approved by USEPA.

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

- a) Every owner or operator of a source subject to the requirements of this Subpart, as determined by Section 218.431 of this Subpart, shall either:
- 1) Reduce emissions of VOM, less methane or ethane, by 98 weight-percent, or to 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent;
  - 2) If a boiler or process heater is used to comply with this Subpart, the vent stream shall be introduced into the flame zone of the boiler or process heater; or
  - 3) If a flare is used to comply with this Subpart it shall comply with the requirements of 40 CFR 60.18, incorporated by reference at Section 218.112 of this Part. The flare operation requirements of 40 CFR 60.18 do not apply if a process, not subject to this Subpart, vents an emergency relief discharge into a common flare header and causes the flare servicing the process subject to this Subpart to not comply with one or more of the provisions of 40 CFR 60.18.
- b) Notwithstanding subsection (a) or (c) of this Section, and subject to subsection (b)(2) of this Section:
- 1) No owner or operator of a source subject to Section 218.432 of this Subpart shall cause or allow VOM to be emitted through an existing control device unless the control device is operated to achieve:
    - A) 90 percent control of the VOM emissions vented to it; or
    - B) VOM emissions concentration of less than 50 ppmv, on a dry basis.
  - 2) Any existing control device subject to subsection (a) of this Section is required to meet the 98 percent emissions limit set forth in subsection (a)(1) upon the earlier to occur of the date the control device is replaced for any reason, including, but not limited to, normal maintenance, malfunction, accident, and obsolescence, or December 31, 1999. A control device is considered to be replaced when:
    - A) All of the device is replaced; or
    - B) When the cost to repair the device or the cost to replace part of the device exceeds 50

percent of the cost of replacing the entire device with a device that complies with the 98% emissions limitation in subsection (a)(1) of this Section.

- c) For each individual vent stream within a chemical manufacturing process unit with a TRE index value greater than 1.0, the owner or operator shall maintain process vent stream parameters that retain a calculated TRE index value greater than 1.0 by means of recovery. Any recovery device shall have as its primary purpose the capture of chemicals for use, reuse, or sale. The TRE index value shall be calculated at the outlet of the final recovery device.

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

Section 218.433

Performance and Testing Requirements

- a) For the purpose of demonstrating compliance with the TRE index value in Section 218.432(c) of this Subpart, an engineering assessment shall be made to determine process vent stream flow rate, net heating value, and VOM emission rate for the representative operating conditions expected to yield the lowest TRE index value. The source shall also calculate the TRE index values pursuant to the equations contained within Appendix G (b)(1) of this Part.
- 1) If the TRE index value calculated using such engineering assessment and the TRE equation in Appendix G (b)(1) of this Part is greater than 4.0, then the owner or operator is exempt from performing the measurements specified in Appendix G (a) of this Part.
  - 2) If the TRE index value calculated using such engineering assessment and the TRE equation in Appendix G (b)(1) of this Part is less than or equal to 4.0, then the owner or operator shall perform the measurements specified in Appendix G(a) of this Part. An owner or operator of a source may, in the alternative, elect to comply with the control requirements specified in Section 218.432 of this Subpart rather than performing the measurements in Appendix G(a) of this Part.
  - 3) An engineering assessment shall include, but is not limited to, the following:
    - A) Previous test results, provided the tests are representative of current operating practices at the chemical manufacturing process unit;

- B) Bench-scale or pilot-scale test data of the process under representative operating conditions;
  - C) Maximum flow rate, as stated within a permit limit, applicable to the process vent;
  - D) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to, the following:
    - i) Use of material balances based on process stoichiometry to estimate maximum VOM concentrations;
    - ii) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;
    - iii) Estimation of VOM concentrations based on saturation conditions; and
    - iv) Estimation of maximum expected net heating value based on the stream concentration of each organic compound, or, alternatively, as if all VOM in the stream were the compound with the highest heating value.
  - E) All data, assumptions, and procedures used in the engineering assessment shall be documented.
- b) For the purpose of demonstrating compliance with the control requirements in Section 218.432 of this Subpart, the chemical manufacturing process unit shall be run at representative operating conditions and flow rates during any performance test.
- c) The following methods in 40 CFR 60, incorporated by reference at Section 218.112 of this Part, shall be used to demonstrate compliance with the reduction efficiency requirement listed in Section 218.432(a)(1) of this Subpart.
- 1) Method 1 or 1A, incorporated by reference at Section 218.112 of this Part, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or VOM content, less methane and ethane, reduction efficiency shall be

located after the last recovery device but prior to the inlet of the control device, prior to any dilution of the process vent stream, and prior to release to the atmosphere.

- 2) Method 2, 2A, 2C, or 2D, incorporated by reference at Section 218.112 of this Part, as appropriate, for determination of gas stream volumetric flow rate.
- 3) The emission rate correction factor, integrated sampling, and analysis procedure of Method 3, incorporated by reference at Section 218.112 of this Part, shall be used to determine the oxygen concentration (%O<sub>2d</sub>) for the purpose of determining compliance with the 20 ppmv limitation. The sampling site for determining compliance with the 20 ppmv limitation shall be the same site used for the VOM samples, and samples shall be taken at the same time that the VOM samples are taken. The VOM concentration corrected to 3 percent oxygen (C<sub>c</sub>) shall be computed using the following formula:

$$C_c \equiv C_{VOM} \times \frac{17.9}{20.9 - \%O_{2d}}$$

where:

C<sub>c</sub> ≡ Concentration of VOM (minus methane and ethane) corrected to 3 percent O<sub>2</sub>, dry basis, ppmv.

C<sub>VOM</sub> ≡ Concentration of VOM (minus methane and ethane), dry basis, ppmv

%O<sub>2d</sub> ≡ Concentration of oxygen, dry basis, percent by volume.

- 4) Method 18, incorporated by reference at Section 218.112 of this Part, to determine the concentration of VOM, less methane and ethane, at the outlet of the control device when determining compliance with the 20 ppmv limitation in Section 218.432(a)(1) of this Subpart, or at both the control device inlet and outlet when the reduction efficiency of the control device is to be determined.

A) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used then the samples shall be taken at 15-minute intervals.

- B) The emission reduction (R) of VOM, less methane and ethane, shall be determined using the following formula:

$$R = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

R = Emission reduction, percent by weight.

E<sub>i</sub> = Mass rate of VOM (minus methane and ethane) entering the control device, kg VOM/hr.

E<sub>o</sub> = Mass rate of VOM, less methane and ethane discharged to the atmosphere, kg VOM/hr.

- C) The mass rates of VOM (E<sub>i</sub>, E<sub>o</sub>) shall be computed using the following formula:

$$E_i = K_2 \frac{\sum_{j=1}^n C_{ij} M_{ij}}{j=1} Q_i$$

$$E_o = K_2 \frac{\sum_{j=1}^n C_{oj} M_{oj}}{j=1} Q_o$$

where:

C<sub>ij</sub>, C<sub>oj</sub> = Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppmv.

M<sub>ij</sub>, M<sub>oj</sub> = Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, grams per gram-mole.

Q<sub>i</sub>, Q<sub>o</sub> = Flow rate of gas stream at the inlet and outlet of the control device, respectively, dry scm/min.



$$K_2 \equiv \frac{2.494 \times 10^{-6} \text{ (liters per minute) (gram-mole per scm) (kg/g) (min/hr)}}{\text{where standard temperature for (gram-mole per scm) is } 20^{\circ}\text{C.}}$$

- D) The representative VOM concentration ( $C_{\text{VOM}}$ ) is the sum of each of the individual components of VOM ( $C_j$ ) and shall be computed for each run using the following:

$$C_{\text{VOM}} = \sum_{j=1}^n C_j$$

where:

$C_{\text{VOM}} \equiv$  Concentration of VOM (minus methane and ethane), dry basis, ppmv.

$C_j \equiv$  Concentration of sample component "j", dry basis, ppmv.

$n \equiv$  Number of components in the sample.

- 5) When a boiler or process heater with a design heat input capacity of 44 megawatts or greater, or a boiler or process heater into which the process vent stream is introduced with the primary fuel, is used to comply with the control requirements, an initial performance test is not required.

- d) When a flare is used to comply with the control requirements of this rule, the flare shall comply with the requirements of 40 CFR 60.18, incorporated by reference at Section 218.112 of this Part.

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

#### Section 218.434 Monitoring Requirements

- a) The owner or operator of a source subject to the control requirements in Section 218.432 of this Subpart that uses an incinerator to comply with the VOM emission limitation specified in Section 218.432 (a) (1) shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder and having an accuracy of  $\pm 1$  percent of the temperature measured expressed in degrees Celsius, or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater.

- 1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.
  - 2) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.
- b) The owner or operator of a source that uses a flare to comply with Section 218.432(a)(2) of this Subpart shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame.
- c) The owner or operator of a source that uses a boiler or process heater with a design heat input capacity less than 44 megawatts to comply with Section 218.432(a)(1) of this Subpart shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a temperature monitoring device in the firebox. The monitoring device shall be equipped with a continuous recorder with an accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. Any boiler or process heater in which all vent streams are introduced with primary fuel is exempt from this requirement.
- d) The owner or operator of a process vent with a TRE index value of 4.0 or less that uses one or more product recovery devices shall install either an organic monitoring device equipped with a continuous recorder or the monitoring equipment specified in subsections (d)(1), (d)(2), (d)(3), or (d)(4) of this Section, depending on the type of recovery device used. All monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications.
- 1) Where an absorber is the final recovery device in the recovery system, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each equipped with a continuous recorder, shall be used.
  - 2) Where a condenser is the final recovery device in the recovery system, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of  $\pm 1$  percent of the temperature being monitored expressed in degrees Celsius or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater.

- 3) Where a carbon absorber is the final recovery device in the recovery system, an integrating regeneration stream flow monitoring device having an accuracy of  $\pm 10$  percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device having an accuracy of  $\pm 1$  percent of the temperature being monitored expressed in degrees Celsius of  $\pm 0.5^{\circ}\text{C}$ , capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.
- 4) Where a scrubber is used with an incinerator, boiler, or, in the case of halogenated vent streams, a process heater, the following monitoring equipment is required for the scrubber:
  - A) A pH monitoring device equipped with a continuous recorder to monitor the pH of the scrubber effluent; and
  - B) Flow meters equipped with a continuous recorder at the scrubber influent for liquid flow and the scrubber inlet for gas stream flow.
- e) The owner or operator of a process vent using a vent system that contains bypass lines capable of diverting a vent stream away from the control device associated with a process vent shall comply with either (e)(1) or (e)(2) of this Section. Equipment needed for safety purposes, including, but not limited to, pressure relief devices, are not subject to this subsection.
  - 1) The owner or operator shall install, calibrate, maintain, and operate a flow indicator that provides a record of vent stream flow at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.
  - 2) The owner or operator shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.
- f) The owner or operator of a process vent may monitor by an equivalent alternative means or parameters other

than those listed in subsections (a) through (d) of this Section. Any equivalent alternative shall be approved by the Agency and USEPA, and contained in the source's operating permit as federally enforceable permit conditions.

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

Section 218.435                      Recordkeeping and Reporting Requirements

- a) Every owner or operator of a reactor or distillation unit with a TRE index value of 4.0 or less shall keep records, for a minimum of 3 years, of the following parameters measured during a performance test or TRE determination required under Section 218.433 of this Subpart, and required to be monitored under Section 218.434 of this Subpart.
- 1) Every owner or operator of a source that seeks to demonstrate compliance with Section 218.432(a)(1) of this Subpart through the use of either a thermal or catalytic incinerator shall maintain records of the following:
- A) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing; and
- B) The percent reduction of VOM determined as specified in Section 218.433(c) of this Subpart achieved by the incinerator, or the concentration of VOM (ppmv, by compound) determined as specified in Section 218.433(c) of this Subpart at the outlet of the control device, on a dry basis, corrected to 3 percent oxygen.
- 2) Every owner or operator of a source that seeks to demonstrate compliance with Section 218.432(a)(1) of this Subpart through the use of a boiler or process heater shall maintain the records described below. Any boiler or process heater in which all vent streams are introduced with primary fuel are exempt from these requirements.
- A) A description of the location at which the vent stream is introduced into the boiler or process heater; and

- B) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 megawatt measured at least every 15 minutes and averaged over the same time period of the performance testing.
- 3) Every owner or operator of a source that seeks to demonstrate compliance with Section 218.432(a)(2) of this Subpart through use of a smokeless flare, or flare design (i.e., steam-assisted, air-assisted, or nonassisted), shall maintain records of all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.
- 4) Every owner or operator of a source that seeks to demonstrate compliance with Section 218.432(b) of this Subpart shall maintain records of the following:
- A) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Agency and USEPA, and average exit temperature of the absorbing liquid measured at least every 15 minutes and averaged over the same time period as the performance testing (both measured while the vent stream is normally routed and constituted);
- B) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period as the performance testing while the vent stream is normally routed and constituted;
- C) Where a carbon absorber is the final recovery device in the recovery system, the total stream mass or volumetric flow measured at least every 15 minutes and averaged over the same time period as the performance testing (full carbon bed cycle), the temperature of the carbon bed after regeneration (and within 15 minutes of completion of any cooling cycle(s)), and duration of the carbon bed

steaming cycle (all measured while the vent stream is normally routed and constituted);

- D) As an alternative to subsection (a)(4)(A), (a)(4)(B) or (a)(4)(C) of this Section, the concentration level or reading indicated by the organic monitoring device at the outlet of the absorber, condenser, or carbon absorber, measured at least every 15 minutes and averaged over the same time period as the performance testing (measured while the vent stream is normally routed and constituted); or
- E) All measurements and calculations performed to determine the flow rate, VOM concentration, heating value, and TRE index value of the vent stream.
- b) Every owner or operator of a reactor or distillation unit with a TRE index value of less than 4.0 shall be subject to the exceedance reporting requirements of the draft Enhanced Monitoring Guidelines as published at 58 Fed. Reg. 54648 (October 22, 1993).
- c) Every owner or operator of a source seeking to comply with Section 218.432(b) of this Subpart shall maintain records of the following:
- 1) Any changes in production capacity, feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or reactors and distillation units; and
  - 2) Any recalculation of the flow rate, VOM concentration, or TRE index value calculated according to Section (c) of Appendix G of this Part.
- d) Every owner or operator of a source claiming a design capacity of less than 1 gigagram (1,100 tons) per year, as contained in Section 218.431(b) of this Subpart, shall maintain records of the design capacity or any changes in equipment or operations that may affect the design capacity.
- e) Every owner or operator of a source claiming a vent stream flow rate or vent stream concentration exemption level, as contained in Section 218.431(b)(5) of this Subpart, shall maintain records to indicate that the stream flow rate is less than 0.0085 scm/min or the vent stream concentration is less than 500 ppmv.

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

Section 218.436      Compliance Date

Every owner or operator of an source subject to Sections 218.431, 218.432, 218.433, 218.434 or 218.435 of this Subpart shall comply with its standards, limitations and mandates by March 15, 1996.

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

SUBPART DD: AEROSOL CAN FILLING

Section 218.686      Control Requirements

- a) Every owner or operator of an aerosol can filling line that is filling cans with a propellant which contains propane, butane or other VOM subject to this Subpart shall comply with the following requirements:
- 1) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emission of at least 81% from the propellant filling area, also known as the gas house, on each line; or
  - 2) As an alternative to compliance with subsection (a)(1) ~~above of this Subpart~~, the owner or operator of an aerosol can filing line, shall comply with the following requirements:
    - A) Fill all cans, other than trial runs of cans to verify product quality, using through-the-valve fill or enhanced under-the-cup fill to minimize loss of VOM propellant; or use a reclamation system to recover surplus VOM propellant or use another system approved in a federally enforceable permit which achieves at least 75% reduction of the emissions of under-the-cup fill;
    - B) Fill on a monthly basis at least 90% of cans filled on such aerosol can filling lines that are capable of being filled by the through-the-valve method with through-the-valve fill. All cans shall be considered capable of being filled by the through-the-valve method unless, as demonstrated by the records required by Section 218.692(b)(2) of this Part, the valve assembly is not adaptable to the through-the-valve fill; through-the-valve fill cannot be accomplished with at least 85% of the under-the-cup operating rate

in cans per minute of filling; and/or performance, that is the discharge of the can's contents to accomplish its intended function, is negatively affected by through-the-valve fill considering factors such as propellant solubility in the can's contents and the amount of turbulence which the contents may experience during propellant filling; and

- C) Verify proper filling of cans with a VOM monitoring system in the gas house. This system may monitor VOM concentration as a percentage of the lower explosive limit.
- b) Every owner or operator of a propellant booster pump associated with an aerosol can filling line subject to this Subpart shall comply with one of the following requirements:
- 1) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emission of at least 81% from each pump. If the pumps are located in the gas house of a filling line, compliance with this reduction may be achieved by the combination of the pumps located in the gas house and the propellant filling area; or
  - 2) Work practices to prevent leaks from a pump, meaning a loss of VOM from the pump above background levels. Work practices shall include changing seals every four (4) weeks and plungers every 16 weeks unless a pump monitoring procedure approved in a federally enforceable permit establishes otherwise.

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

SUBPART FF: BAKERY OVENS

Section 218.720 Applicability

- a) The provisions of this Subpart shall apply to every owner or operator of a source which operates a bakery oven, as defined at 35 Ill. Admin. Code 211.680, unless the source bakes products only for on-site human consumption or on-site retail sale.
- b) Notwithstanding subsection (a) of this Section, a source is required to comply with the control requirements of this Subpart only if the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per



year, in the aggregate, from all emission units at the source, excluding:

- 1) Emission units regulated by Subparts B, E, F, H, Q, R, S, T (excluding Section 218.486 of this Part), V, X, Y, Z or BB of this Part; and
  - 2) Emission units that are included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture coating, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- c) Every owner or operator of a source which has limited its potential to emit below 22.7 Mg (25 tons) of VOM per year, as specified in subsection (b) of this Section, through federally enforceable permit conditions is not required to comply with this Subpart.
- d) Every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart because of the criteria in subsection (b) of this Section remains subject to the recordkeeping and reporting requirements of Section 218.728(b) of this Subpart and the certification requirements in Section 218.730(d) of this Subpart.

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

Section 218.722 Control Requirements

- a) Every owner or operator of a source subject to the control requirements of this Subpart shall comply with the requirements of subsection (a)(1) or (a)(2) of this Section for each bakery oven with a rated heat input capacity of at least 2 mmbtu/hr or at least 586 kW:
- 1) Operate emissions capture and control equipment which achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent from each such bakery oven; or
  - 2) Provide an equivalent alternative control plan for such bakery ovens at the source which has been approved by the Agency and USEPA through federally enforceable permit conditions or as a SIP revision.

- b) Any bakery oven that becomes subject to the requirements of this Subpart at any time shall remain subject to the requirements of this Subpart at all times thereafter.

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

Section 218.726      Testing

- a) Upon request by the Agency, the owner or operator of a bakery oven shall, at its own expense, conduct such tests in accordance with the applicable test methods and procedures specified in Section 218.105(f) of this Part to demonstrate compliance with the control requirements of this Subpart and shall:
- 1) Notify the Agency 30 days prior to conducting such tests; and
  - 2) Submit all test results to the Agency within 30 days of conducting such tests.
- b) Nothing in this Section shall limit the authority of USEPA pursuant to the Clean Air Act (CAA) to require testing, or shall affect the authority of USEPA under Section 114 of the CAA (42 U.S.C. 7414 (1990)).

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

Section 218.727      Monitoring

- a) Every owner or operator of a bakery oven subject to the control requirements of this Subpart shall install and operate at all times a device to continuously monitor the following parameters for each type of control device as follows:
- 1) For catalytic oxidizers, the inlet and outlet temperatures of the oxidizer;
  - 2) For regenerative oxidizers, the temperature in the combustion chamber; or
  - 3) For thermal incinerators, the temperature in the combustion chamber.
- b) The owner or operator may monitor with an alternative method or monitor other parameters if approved by the Agency and USEPA through federally enforceable permit conditions or as a SIP revision.

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

Section 218.728                      Recordkeeping and Reporting

a) Every owner or operator of a bakery oven shall maintain the following records for the most recent consecutive 3 year period for all bakery ovens subject to the control requirements of this Subpart. Such records shall be made available to the Agency immediately upon request.

- 1) Parameters for control devices as monitored pursuant to Section 218.727 of this Subpart;
- 2) Hrs/day of operation of each bakery oven;
- 3) Factors necessary to calculate VOM emissions for all bakery ovens including, but not limited to, type of dough used for each yeast-leavened baked product, initial yeast percentage for each product, total fermentation time for each product, any additional percentage of yeast added, and the fermentation time of any additional yeast;
- 4) Calculated daily VOM emissions of each bakery oven expressed as lbs/day;
- 5) Total amount of each type of yeast-leavened bread product produced by each bakery oven expressed as lbs/day.

b) Every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart because of the criteria in Section 218.720(b) of this Subpart shall maintain records necessary to demonstrate that its potential to emit is less than 22.7 Mg (25 tons) of VOM per year, as specified in Section 218.720(b). Such records shall be maintained for the most recent consecutive 3 year period and shall be made available to the Agency immediately upon request.

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

Section 218.729                      Compliance Date

On and after March 15, 1996, upon initial startup or upon modification, every owner or operator of a source subject to this Subpart shall comply with the requirements of this Subpart.

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

Section 218.730                      Certification

- a) Every owner or operator of a source subject to the control requirements of this Subpart shall certify compliance with this Subpart on or before a date consistent with Section 218.729 of this Subpart.
- b) If an owner or operator of a bakery oven subject to the control requirements of this Subpart changes the method of compliance, the owner or operator shall certify compliance with the requirements of this Subpart for the alternative method upon changing the method of compliance.
- c) All certifications of compliance with this Subpart shall include the results of all tests and the calculations performed to demonstrate that each oven at the source is in compliance with, or is exempt from, the control requirements of this Subpart. The certification shall include the following:
- 1) The name and identification number of each oven and any associated capture and control device;
  - 2) The maximum rated heat input of each oven;
  - 3) A classification of each oven as either a "bakery oven" as defined in 35 Ill. Admin. Code 211.680 or an oven used exclusively to bake non-yeast-leavened products;
  - 4) The capture and control efficiency of each bakery oven control device;
  - 5) Test reports, calculations, and other data necessary to demonstrate that the capture and control efficiency of each bakery oven control device achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent; and
  - 6) The date each bakery oven control device was installed and operating.
- d) On or before March 15, 1996, or upon initial startup, every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart because of the criteria in Section 218.720(b) of this Subpart shall certify that its potential to emit is less than 22.7 Mg (25 tons) of VOM per year, as specified in Section 218.720(b).

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

## MANUFACTURING PROCESS

## Section 218.966 Control Requirements

Every owner or operator of a miscellaneous organic chemical manufacturing process emission unit subject to this Subpart shall comply with the requirements of subsection (a), (b), or (c) ~~below~~ of this Section.

- a) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or  
  
(Board Note: For the purpose of this provision, an emission unit is any part or activity at a source of a type that by itself is subject to control requirements in other Subparts of this Part or 40 CFR 60, incorporated by reference in Section 218.112, e.g., a coating line, a printing line, a process unit, a wastewater system, or other equipment, or is otherwise any part or activity at a source.)
- b) An equivalent alternative control plan which has been approved by the Agency and USEPA in a federally enforceable permit or as a SIP revision.
- c) Any leaks from components subject to the control requirements of this Subpart shall be subject to the following control measures by March 15, 1995:
  - 1) Repair any component from which a leak of VOL can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found, unless the leaking component cannot be repaired until the process unit is shut down, in which case the leaking component must be repaired before the unit is restarted.
  - 2) For any leak which cannot be readily repaired within one hour after detection, the following records, as set forth in this subsection, shall be kept. These records shall be maintained by the owner or operator for a minimum of two years after the date on which they are made. Copies of the records shall be made available to the Agency or USEPA upon verbal or written request.
    - A) The name and identification of the leaking component;
    - B) The date and time the leak is detected;
    - C) The action taken to repair the leak; and

D) The date and time the leak is repaired.

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

SUBPART TT: OTHER EMISSION UNITS

Section 218.980 Applicability

a) Maximum theoretical emissions:

- 1) A source is subject to this Subpart if it contains process emission units not regulated by Subparts B, E, F (excluding Section 218.204(1) of this Part), H (excluding Section 218.405 of this Part), Q, R, S, T (excluding Section 218.486 of this Part), V, X, Y, Z or BB of this Part, which as a group both:
  - A) Have maximum theoretical emissions of 90.7 Mg (100 tons) or more per calendar year of VOM, and
  - B) Are not limited to less than 90.7 Mg (100 tons) of VOM emissions per calendar year in the absence of air pollution control equipment through production or capacity limitations contained in a federally enforceable permit or a SIP revision.
- 2) If a source is subject to this Subpart as provided ~~above~~ in this Subpart, the requirements of this Subpart shall apply to a source's VOM emission units which are not included within any of the categories specified in Subparts B, E, F, H, Q, R, S, T, V, X, Y, Z, AA, BB, PP, QQ, or RR of this Part or which are not exempted from permitting requirements pursuant to 35 Ill. Adm. Code 201.146.

b) Potential to emit:

- 1) A source is subject to this Subpart if it has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from emission units, other than furnaces at glass container manufacturing sources and VOM leaks from components, that are:
  - A) Not regulated by Subparts B, E, F, H, Q, R, S, T, (excluding Section 218.486 of this Part), V, X, Y, Z, or BB of this Part, or
  - B) Not included in any of the following categories: synthetic organic chemical

manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.

- 2) If a source is subject to this Subpart as provided above, the requirements of this Subpart shall apply to a source's VOM emission units, which are:
  - A) Not included within any of the categories specified in Subparts B, E, F, H, Q, R, S, T, V, X, Y, Z, AA, BB, CC, DD, PP, QQ or RR of this Part, or which are not exempted from permitting requirements pursuant to 35 Ill. Adm. Code 201.146 (excluding Section 201.146(o) and (p)), or
  - B) Not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- c) If a source ceases to fulfill the criteria of subsection (a) and/or (b) ~~above of this Section~~, the requirements of this Subpart shall continue to apply to an emission unit which was ever subject to the control requirements of Section 219.986 of this Part.
- d) No limits under this Subpart shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission units not complying with Section 219.986 of this Part does not exceed 4.5 Mg (5.0 tons) per calendar year.
- e) For the purposes of this Subpart, an emission unit shall be considered regulated by a Subpart, if it is subject to the limits of that Subpart. An emission unit is considered not regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.

- f) The control requirements in Subpart TT shall not apply to sewage treatment plants; vegetable oil extraction and processing; coke ovens (including by-product recovery plants); fuel combustion units; bakeries; barge loading facilities; jet engine test cells; production of polystyrene foam insulation board including storage and extrusion of scrap where blowing agent is added to the polystyrene resin at the source, but not including blending and preliminary expansion of resin prior to molding where blowing agent is incorporated into the polystyrene resin by the producer of the resin; production of polystyrene or polyethylene foam packaging not including blending and preliminary expansion of resin prior to molding where blowing agent is incorporated into the polystyrene resin by the producer of the resin, and not including storage and extrusion of scrap where blowing agent is added to the polystyrene resin at the source; iron and steel production; and furnaces at glass container manufacturing sources.

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

Section 218.Appendix G TRE Index Measurements for SOCFI Reactors and Distillation Units

For purposes of Subpart Q, Sections 218.431 through 218.435, the following apply:

- a) The following test methods shall be used to determine compliance with the total resource effectiveness ("TRE") index value:
- 1) Method 1 or 1A, incorporated by reference at Section 218.112 of this Part, as appropriate, for selection of the sampling site.
    - A) The sampling site for the vent stream molar composition determination and flow rate prescribed in subsections (a)(2) and (a)(3) of this Appendix shall be, except for the situations outlined in subsection (a)(1)(B), after the final recovery device, if a recovery system is present, prior to the inlet of any control device, and prior to any post-reactor or post-distillation unit introduction of halogenated compounds into the vent stream. No traverse site selection method is needed for vents smaller than 10 cm in diameter.



- B) If any gas stream other than the reactor or distillation unit vent stream is normally conducted through the final recovery device:
- i) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which any nonreactor or nondistillation unit vent stream or stream from a nonaffected reactor or distillation unit is introduced. Method 18 incorporated by reference at Section 218.112 of this Part, shall be used to measure organic compound concentrations at this site.
  - ii) The efficiency of the final recovery device is determined by measuring the organic compound concentrations using Method 18, incorporated by reference at Section 218.112 of this Part, at the inlet to the final recovery device after the introduction of all vent streams and at the outlet of the final recovery device.
  - iii) The efficiency of the final recovery device determined according to subsection (a)(1)(B)(ii) of this Appendix shall be applied to the organic compound concentrations measured according to subsection (a)(1)(B)(i) of this Appendix to determine the concentrations of organic compounds from the final recovery device attributable to the reactor or distillation unit vent stream. The resulting organic compound concentrations are then used to perform the calculations outlined in subsection (a)(4) of this Appendix.
- 2) The molar composition of the vent stream shall be determined as follows:
- A) Method 18, incorporated by reference at Section 218.112 of this Part, to measure the concentration of organic compounds including those containing halogens;
  - B) ASTM D1946-77, incorporated by reference at Section 218.112 of this Part, to measure the concentration of carbon monoxide and hydrogen; and

- C) Method 4, incorporated by reference at Section 218.112 of this Part, to measure the content of water vapor.
- 3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, incorporated by reference at Section 218.112 of this Part, as appropriate.
- 4) The emission rate of VOM (minus methane and ethane) ( $E_{VOM}$ ) in the vent stream shall be calculated using the following formula:

$$E_{VOM} = K_2 \frac{\sum_{j=1}^n C_j M_j Q_v}{j=1}$$

where:

- $E_{VOM}$  = Emission rate of VOM (minus methane and ethane) in the sample, kg/hr.
- $K_2$  = Constant,  $2.494 \times 10^{-6}$  (l/ppmv)(g-mole/scm)(kg/g)(min/hr), where standard temperature for (g-mole/scm) is 20°C.
- $C_j$  = Concentration of compound j, on a dry basis, in ppmv as measured by Method 18, incorporated by reference at Section 218.112 of this Part, as indicated in Section 218.433(c)(3) of this Part.
- $M_j$  = Molecular weight of sample j, g/g-mole.
- $Q_v$  = Vent stream flow rate (scm) at a temperature of 20°C.

- 5) The total vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18, incorporated by reference at Section 218.112 of this Part.
- 6) The net heating value of the vent stream shall be calculated using the following:

$$H_T = K_1 \frac{\sum_{j=1}^n C_j H_j (1-B_{wv})}{j=1}$$

where:

- $H_T$  = Net heating value of the sample (MJ/scm, where the net enthalpy per mole of vent

stream is based on combustion of 25°C and 760 mmHG, but the standard temperature for determining the volume corresponding to one mole is 25°C, as in the definition of Q<sub>v</sub> (vent stream flow rate).

K<sub>i</sub> = Constant, 1.740 x 10<sup>-7</sup> (ppmv)<sup>-1</sup> (g-mole/scm), (MJ/KCal), where standard temperature for (g-mole/scm) is 20°C.

E<sub>ws</sub> = Water vapor content of the vent stream, proportion by volume; except that if the vent stream passes through a final stream jet and is not condensed, it shall be assumed that E<sub>ws</sub> = 0.023 in order to correct to 2.3 percent moisture.

C<sub>j</sub> = Concentration on a dry basis of compound j in ppmv, as measured for all organic compounds by Method 18, incorporated by reference at Section 218.112 of this Part, and measured for hydrogen and carbon monoxide by using ASTM D1946-77, incorporated by reference at Section 218.112 of this Part.

H<sub>j</sub> = Net heat of combustion of compound j, kCal/g-mole, based on combustion at 25°C and 760 mmHG. The heats of combustion of vent stream components shall be determined using ASTM D2382-83, incorporated by reference at Section 218.112 of this Part, if published values are not available or cannot be calculated.

b) 1) The TRE index value of the vent shall be calculated using the following:

$$\text{TRE} = \frac{1 [a + b (Q_v) + c (H_T) + d (E_{\text{VOM}})]}{E_{\text{VOM}}}$$

where:

TRE = TRE index value.

E<sub>VOM</sub> = Hourly emission rate of VOM (kg/hr) as calculated in subsection (a)(4) of this Appendix.

- $Q_v$  = Vent stream flow rate scm/min at a standard temperature of 20°C.
- $H_T$  = Vent stream net heating value (MJ/scm), as calculated in subsection (a)(6) of this Appendix.
- $E_{VOM}$  = Hourly emission rate of VOM (minus methane and ethane), (kg/hr) as calculated in subsection (a)(4) of this Appendix.
- $a, b, c, d$  = Value of coefficients presented below are:

<u>Type of Stream</u>	<u>Control Device Basis</u>	<u>Value of Coefficients</u>			
		<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>
<u>Nonhalogenated</u>	<u>Flare</u>	2.129	0.183	-0.005	0.359
	<u>Thermal incinerator zero (0) Percent heat Recovery</u>	3.075	0.021	-0.037	0.018
	<u>Thermal incinerator 70 Percent heat Recovery</u>	3.803	0.032	-0.042	0.007
<u>Halogenated</u>	<u>Thermal incinerator and scrubber</u>	5.470	0.181	-0.040	0.004

- 2) Every owner or operator of a vent stream shall use the applicable coefficients identified for values a, b, c, and d in subsection (b)(1) of this Appendix to calculate the TRE index value based on a flare, a thermal incinerator with zero (0) percent heat recovery, and a thermal incinerator with 70 percent heat recovery, and shall select the lowest TRE index value.
- 3) Every owner or operator of a reactor or distillation unit with a halogenated vent stream, determined as any stream with a total concentration of halogen atoms contained in organic compounds of 200 ppmv or greater, shall use the applicable coefficients identified for values a, b, c and d in subsection (b)(1) of this Appendix to calculate the TRE index value based on a thermal incinerator and scrubber.
- c) Every owner or operator of a source seeking to comply with Section 218.432(b) of this Part shall recalculate the flow rate and VOM concentration for each affected

vent stream whenever process changes are made. Examples of process changes include, but are not limited to, changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The flow rate and VOM concentration shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

- d) Whenever a process change, as defined in Section 218.435(c) of this Subpart, yields a TRE index value of 1.0 or less, the owner or operator shall notify and submit a report to the Agency according to the requirements specified in Section 218.435(c) of this Subpart, within 180 calendar days after the process change and shall conduct a performance test according to the methods and procedures required by Section 218.433 of this Part.
- e) For the purpose of demonstrating that a process vent stream has a VOM concentration below 500 ppmv, the following shall be used:
- 1) The sampling site shall be selected as specified in Section 218.433(c)(1) of this Part.
  - 2) Method 18 or Method 25A of 40 CFR Part 60, Appendix A, incorporated by reference at Section 218.112 of this Part, shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of 40 CFR Part 63, Appendix A, incorporated by reference at Section 218.112 of this Part, may be used.
  - 3) Where Method 18 is used, the following procedures shall be used to calculate ppmv concentration:
    - i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.
    - ii) The concentration of VOM shall be calculated using Method 18 according to Section 218.433(c)(4) of this Part.
  - 4) Where Method 25A is used, the following procedures shall be used to calculate ppmv VOM concentration:

- i) Method 25A shall be used only if a single VOM is greater than 50 percent of total VOM, by volume, in the process vent stream.
  - ii) The vent stream composition may be determined by either process knowledge, test data collected using an appropriate Reference Method or a method of data collection validated according to the protocol in Method 301 of 40 CFR Part 63, Appendix A, incorporated by reference at Section 218.112 of this Part. Examples of information that constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current process vent stream conditions.
  - iii) The VOM used as the calibration gas for Method 25A shall be the single VOM present at greater than 50 percent of the total VOM by volume.
  - iv) The span value for Method 25A shall be 50 ppmv.
  - v) Use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
  - vi) The concentration of VOM shall be corrected to 3 percent oxygen using the procedures and equation in Section 218.433(c)(3) of this Part.
- 5) The owner or operator shall demonstrate that the concentration of VOM, including methane and ethane, measured by Method 25A is below 250 ppmv to qualify for the low concentration exclusion in Section 218.431 of this Part.

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

Section 218.Appendix H Base Line VOM Content Limitations for Subpart F, Section 218.212 Cross-Line Averaging

This Appendix contains limitations for purposes of determining compliance with the requirements in Section 218.212 of this Part.

A source must establish that, at very least, each participating coating line used for purposes of cross-line averaging meets the Federal Implementation Plan level of VOM content, as listed below. The emission limitations for participating coating lines that must not be exceeded are as follows:

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

(Note: The primer surface coat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire primer surface operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 218.105(b) and the recordkeeping and reporting requirements specified in Section 218.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 218.205 does not apply to the primer surface limitation.)

3) <u>Topcoat</u>	<u>kg/l</u> <u>1.81</u>	<u>lb/gal</u> <u>(15.1)</u>
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(Note: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire topcoat operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 218.105(b) of this Part and the recordkeeping and reporting requirements specified in Section 218.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 218.205 of this Part does not apply to the topcoat limitation.)

4) <u>Final repair coat</u>	<u>kg/l</u> <u>0.58</u>	<u>lb/gal</u> <u>(4.8)</u>
b) <u>Can Coating</u>	<u>kg/l</u>	<u>lb/gal</u>

1)	<u>Sheet basecoat and overvarnish</u>	<u>0.34</u>	<u>(2.8)</u>
2)	<u>Exterior basecoat and overvarnish</u>	<u>0.34</u>	<u>(2.8)</u>
3)	<u>Interior body spray coat</u>	<u>0.51</u>	<u>(4.2)</u>
4)	<u>Exterior end coat</u>	<u>0.51</u>	<u>(4.2)</u>
5)	<u>Side seam spray coat</u>	<u>0.66</u>	<u>(5.5)</u>
6)	<u>End sealing compound coat</u>	<u>0.44</u>	<u>(3.7)</u>
		<u>kg/l</u>	<u>lb/gal</u>
c)	<u>Paper Coating</u>	<u>0.35</u>	<u>(2.9)</u>

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which printing is performed if the paper coating line complies with the emissions limitations in Subpart H: Printing and Publishing, Section 218.401 of this Part.)

		<u>kg/l</u>	<u>lb/gal</u>
d)	<u>Coil Coating</u>	<u>0.31</u>	<u>(2.6)</u>
e)	<u>Fabric Coating</u>	<u>0.35</u>	<u>(2.9)</u>
f)	<u>Vinyl Coating</u>	<u>0.45</u>	<u>(3.8)</u>
g)	<u>Metal Furniture Coating</u>		
	1) <u>Air Dried</u>	<u>0.36</u>	<u>(3.0)</u>
	2) <u>Baked</u>	<u>0.36</u>	<u>(3.0)</u>
h)	<u>Large Appliance Coating</u>		
	1) <u>Air Dried</u>	<u>0.34</u>	<u>(2.8)</u>
	2) <u>Baked</u>	<u>0.34</u>	<u>(2.8)</u>

(Note: The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 l (1 quart) in any one rolling eight-hour period.)

		<u>kg/l</u>	<u>lb/gal</u>
i)	<u>Magnet Wire Coating</u>	<u>0.20</u>	<u>(1.7)</u>
j)	<u>Miscellaneous Metal Parts and Products Coating</u>		



1)	<u>Clear coating</u>	<u>0.52</u>	<u>(4.3)</u>
2)	<u>Extreme performance coating</u>		
	A) <u>Air Dried</u>	<u>0.42</u>	<u>(3.5)</u>
	B) <u>Baked</u>	<u>0.42</u>	<u>(3.5)</u>
3)	<u>Steel pail and drum interior coating</u>	<u>0.52</u>	<u>(4.3)</u>
4)	<u>All other coatings</u>		
	A) <u>Air Dried</u>	<u>0.42</u>	<u>(3.5)</u>
	B) <u>Baked</u>	<u>0.36</u>	<u>(3.0)</u>
k)	<u>Heavy Off-Highway Vehicle Products Coating</u>	<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Extreme performance prime coat</u>	<u>0.42</u>	<u>(3.5)</u>
2)	<u>Extreme performance top-coat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
3)	<u>Final repair coat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
4)	<u>All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j) above.</u>		
1)	<u>Wood Furniture Coating</u>	<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Clear topcoat</u>	<u>0.67</u>	<u>(5.6)</u>
2)	<u>Opaque stain</u>	<u>0.56</u>	<u>(4.7)</u>
3)	<u>Pigmented coat</u>	<u>0.60</u>	<u>(5.0)</u>
4)	<u>Repair coat</u>	<u>0.67</u>	<u>(5.6)</u>
5)	<u>Sealer</u>	<u>0.67</u>	<u>(5.6)</u>
6)	<u>Semi-transparent stain</u>	<u>0.79</u>	<u>(6.6)</u>
7)	<u>Wash coat</u>	<u>0.73</u>	<u>(6.1)</u>

(Note: An owner or operator of a wood furniture coating operation subject to this Section shall apply all coatings, with the exception of no more than 37.8 l (10 gal) of coating per day used for

touch-up and repair operations, using one or more of the following application systems: airless spray application system, air-assisted airless spray application system, electrostatic spray application system, electrostatic bell or disc spray application system, heated airless spray application system, roller coating, brush or wipe coating application system, dip coating application system or high volume low pressure (HVLP) application system.)

m) Existing Diesel-Electric Locomotive Coating Lines in Cook County

	<u>kg/l</u>	<u>lb/gal</u>
1) <u>Extreme performance prime coat</u>	<u>0.42</u>	<u>(3.5)</u>
2) <u>Extreme performance topcoat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
3) <u>Final repair coat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
4) <u>High-temperature aluminum coating</u>	<u>0.72</u>	<u>(6.0)</u>
5) <u>All other coatings</u>	<u>0.36</u>	<u>(3.0)</u>

n) Plastic Parts Coating: Automotive/Transportation

	<u>kg/l</u>	<u>lb/gal</u>
1) <u>Interiors</u>		
A) <u>Baked</u>		
i) <u>Color coat</u>	<u>0.49</u>	<u>(4.1)</u>
ii) <u>Primer</u>	<u>0.46</u>	<u>(3.8)</u>
B) <u>Air Dried</u>		
i) <u>Color coat</u>	<u>0.38</u>	<u>(3.2)</u>
ii) <u>Primer</u>	<u>0.42</u>	<u>(3.5)</u>
2) <u>Exteriors (flexible and non-flexible)</u>		
A) <u>Baked</u>		
i) <u>Primer</u>	<u>0.60</u>	<u>(5.0)</u>
ii) <u>Primer non-</u>	<u>0.54</u>	<u>(4.5)</u>

flexible

iii) <u>Clear coat</u>	<u>0.52</u>	<u>(4.3)</u>
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iv) <u>Color coat</u>	<u>0.55</u>	<u>(4.6)</u>
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B) Air Dried

i) <u>Primer</u>	<u>0.66</u>	<u>(5.5)</u>
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ii) <u>Clear coat</u>	<u>0.54</u>	<u>(4.5)</u>
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iii) <u>Color coat</u> <u>(red &amp; black)</u>	<u>0.67</u>	<u>(5.6)</u>
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iv) <u>Color coat</u> <u>(others)</u>	<u>0.61</u>	<u>(5.1)</u>
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3) Specialty

A) <u>Vacuum metallizing</u> <u>basecoats, texture</u> <u>basecoats</u>	<u>0.66</u>	<u>(5.5)</u>
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B) <u>Black coatings,</u> <u>reflective argent</u> <u>coatings, air</u> <u>bag cover coatings,</u> <u>and soft coatings</u>	<u>0.71</u>	<u>(5.9)</u>
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C) <u>Gloss reducers,</u> <u>vacuum metallizing</u> <u>topcoats, and</u> <u>texture topcoats</u>	<u>0.77</u>	<u>(6.4)</u>
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D) <u>Stencil coatings,</u> <u>adhesion primers,</u> <u>ink pad coatings,</u> <u>electrostatic prep</u> <u>coatings, and resist</u> <u>coatings</u>	<u>0.82</u>	<u>(6.8)</u>
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E) <u>Head lamp lens</u> <u>coatings</u>	<u>0.89</u>	<u>(7.4)</u>
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o) Plastic Parts Coating: Business Machine

	<u>kg/l</u>	<u>lb/gal</u>
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1) <u>Primer</u>	<u>0.14</u>	<u>(1.2)</u>
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2) <u>Color coat (non-</u> <u>texture coat)</u>	<u>0.28</u>	<u>(2.3)</u>
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3)	<u>Color coat (texture coat)</u>	<u>0.28</u>	<u>(2.3)</u>
4)	<u>Electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings</u>	<u>0.48</u>	<u>(4.0)</u>
5)	<u>Specialty Coatings</u>		
A)	<u>Soft coat</u>	<u>0.52</u>	<u>(4.3)</u>
B)	<u>Plating resist</u>	<u>0.71</u>	<u>(5.9)</u>
C)	<u>Plating sensitizer</u>	<u>0.85</u>	<u>(7.1)*</u>

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

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

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

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	
219.121	Storage Containers
219.122	Loading Operations

- 219.123 Petroleum Liquid Storage Tanks
- 219.124 External Floating Roofs
- 219.125 Compliance Dates (Repealed)
- 219.126 Compliance Plan (Repealed)

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 in General  
219.182 Cold Cleaning  
219.183 Open Top Vapor Degreasing  
219.184 Conveyorized Degreasing  
219.185 Compliance Schedule (Repealed)  
219.186 Test Methods

## 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

## 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 Heatset-Web-Offset Lithographic Printing

SUBPART Q: ~~LEAKS FROM~~ 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)
<u>219.431</u>	<u>Applicability</u>
<u>219.432</u>	<u>Control Requirements</u>
<u>219.433</u>	<u>Performance and Testing Requirements</u>
<u>219.434</u>	<u>Monitoring Requirements</u>
<u>219.435</u>	<u>Recordkeeping and Reporting Requirements</u>
<u>219.436</u>	<u>Compliance Date</u>

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: AIR OXIDATION PROCESSES

- Section  
 219.521 Definitions (Repealed)  
 219.525 Emission Limitations for Air Oxidation Processes  
 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  
 219.586 Gasoline Dispensing Operations - Motor Vehicle Fueling  
 Operations (Repealed)

SUBPART Z: DRY CLEANERS

- Section  
 219.601 Perchloroethylene Dry Cleaners  
 219.602 Exemptions  
 219.603 Leaks  
 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  
219.722 Control Requirements  
219.726 Testing  
219.727 Monitoring  
219.728 Recordkeeping and Reporting  
219.729 Compliance Date  
219.730 Certification  
 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 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

Section 219.Appendix A: List of Chemicals Defining Synthetic Organic Chemical and Polymer Manufacturing  
 Section 219.Appendix B: VOM Measurement Techniques for Capture Efficiency  
 Section 219.Appendix C: Reference Test Methods For Air Oxidation Processes  
 Section 219.Appendix D: Coefficients for the Total Resource Effectiveness Index (TRE) Equation  
 Section 219.Appendix G: TRE Index Measurements for SOCM Reactors and Distillation Units  
 Section 219.Appendix H: Baseline VOM Content Limitations for Subpart F, Section 219.212 Cross-Line Averaging

AUTHORITY: Implementing Section 10 and authorized by Section 28.5 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, par. 1010) (P.A. 87-1213, effective September 26, 1992) [415 ILCS 5/10 and 28.5].

SOURCE: Adopted at 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 \_\_\_\_\_ at \_\_\_\_\_ Ill.  
Reg. \_\_\_\_\_ effective \_\_\_\_\_.

### SUBPART F: COATING OPERATIONS

#### Section 219.204 Emission Limitations

Except as provided in Sections 219.205, 219.207 and, 219.208 and 219.212 of this Part ~~Part~~ Subpart, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. Compliance with the emission limitations marked with an asterisk in this Section is required on and after March 15, 1996. Compliance with emission limitations not marked with an asterisk is required until March 15, 1996. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with this Subpart must be demonstrated through the applicable coating analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(c) of this Part ~~Part~~ Subpart except where noted. (Note: The equation presented in Section 219.206 of this Part shall be used to calculate emission limitations for determining compliance by add-on controls, credits for transfer efficiency, emissions trades and cross-line averaging.) The emission limitations are as follows:

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

(Note: The primer surface coat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire primer surface operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating

compliance with the protocol. Section 219.205 does not apply to the primer surface limitation.)

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

(Note: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire topcoat operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 of this Part does not apply to the topcoat limitation.)

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

	kg/l	lb/gal
c) Paper Coating	0.35	(2.9)
	<u>0.28*</u>	<u>(2.3)*</u>

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which printing is performed if the paper coating line complies with the emissions limitations in Subpart H: Printing and Publishing, Sections 219.401 of this Part.)

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

(Note: The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 l (1 quart) in any one rolling eight-hour period.)

	kg/l	lb/gal
i) Magnet Wire Coating	0.20	(1.7)
	<u>0.20*</u>	<u>(1.7)*</u>
j) Miscellaneous Metal Parts and Products Coating		
1) Clear coating	0.52	(4.3)
	<u>0.52*</u>	<u>(4.3)*</u>
2) <del>Air dried coating</del>	<del>0.42</del>	<del>(3.5)</del>

32)	Extreme performance coating	<del>0.42</del>	<del>(3.5)</del>
	A) <u>Air dried</u>	<u>0.42</u>	<u>(3.5)</u>
		<u>0.42*</u>	<u>(3.5)*</u>
	B) <u>Baked</u>	<u>0.42</u>	<u>(3.5)</u>
		<u>0.36*</u>	<u>(3.0)*</u>
43)	Steel pail and drum interior coating	0.52	(4.3)
		<u>0.52*</u>	<u>(4.3)*</u>
54)	All other coatings	<del>0.36</del>	<del>(3.0)</del>
	A) <u>Air Dried</u>	<u>0.42</u>	<u>(3.5)</u>
		<u>0.34*</u>	<u>(2.8)*</u>
	B) <u>Baked</u>	<u>0.36</u>	<u>(3.0)</u>
		<u>0.28*</u>	<u>(2.3)*</u>
k)	Heavy Off-Highway Vehicle Products Coating	kg/l	lb/gal
1)	Extreme performance prime coat	0.42	(3.5)
		<u>0.42*</u>	<u>(3.5)*</u>
2)	Extreme performance top-coat (air dried)	0.42	(3.5)
		<u>0.42*</u>	<u>(3.5)*</u>
3)	Final repair coat (air dried)	0.42	(3.5)
		<u>0.42*</u>	<u>(3.5)*</u>
4)	All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j) above.		
l)	Wood Furniture Coating	kg/l	lb/gal
1)	Clear topcoat	0.67	(5.6)
		<u>0.67*</u>	<u>(5.6)*</u>
2)	Opaque stain	0.56	(4.7)
		<u>0.56*</u>	<u>(4.7)*</u>
3)	Pigmented coat	0.60	(5.0)
		<u>0.60*</u>	<u>(5.0)*</u>
4)	Repair coat	0.67	(5.6)
		<u>0.67*</u>	<u>(5.6)*</u>
5)	Sealer	0.67	(5.6)
		<u>0.67*</u>	<u>(5.6)*</u>
6)	Semi-transparent stain	0.79	(6.6)

		<u>0.79*</u>	<u>(6.6)*</u>
7)	Wash coat	0.73	(6.1)
		<u>0.73*</u>	<u>(6.1)*</u>

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

m) Plastic Parts Coating: Automotive/Transportation

		<u>kg/l</u>	<u>lb/gal</u>
<u>1)</u>	<u>Interiors</u>		
	<u>A) Baked</u>		
	<u>i) Color coat</u>	<u>0.49*</u>	<u>(4.1)*</u>
	<u>ii) Primer</u>	<u>0.46*</u>	<u>(3.8)*</u>
	<u>B) Air Dried</u>		
	<u>i) Color coat</u>	<u>0.38*</u>	<u>(3.2)*</u>
	<u>ii) Primer</u>	<u>0.42*</u>	<u>(3.5)*</u>
<u>2)</u>	<u>Exteriors (flexible and non-flexible)</u>		
	<u>A) Baked</u>		
	<u>i) Primer</u>	<u>0.60*</u>	<u>(5.0)*</u>
	<u>ii) Primer non-flexible</u>	<u>0.54*</u>	<u>(4.5)*</u>
	<u>iii) Clear coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
	<u>iv) Color coat</u>	<u>0.55*</u>	<u>(4.6)*</u>
	<u>B) Air Dried</u>		
	<u>i) Primer</u>	<u>0.66*</u>	<u>(5.5)*</u>

ii)	<u>Clear coat</u>	<u>0.54*</u>	<u>(4.5)*</u>
iii)	<u>Color coat</u> <u>(red &amp; black)</u>	<u>0.67*</u>	<u>(5.6)*</u>
iv)	<u>Color coat</u> <u>(others)</u>	<u>0.61*</u>	<u>(5.1)*</u>

3) Specialty

A)	<u>Vacuum metallizing</u> <u>basecoats, texture</u> <u>basecoats</u>	<u>0.66*</u>	<u>(5.5)*</u>
B)	<u>Black coatings,</u> <u>reflective argent</u> <u>coatings, air</u> <u>bag cover coatings,</u> <u>and soft coatings</u>	<u>0.71*</u>	<u>(5.9)*</u>
C)	<u>Gloss reducers,</u> <u>vacuum metallizing</u> <u>topcoats, and</u> <u>texture topcoats</u>	<u>0.77*</u>	<u>(6.4)*</u>
D)	<u>Stencil coatings,</u> <u>adhesion primers,</u> <u>ink pad coatings,</u> <u>electrostatic prep</u> <u>coatings, and resist</u> <u>coatings</u>	<u>0.82*</u>	<u>(6.8)*</u>
E)	<u>Head lamp lens</u> <u>coatings</u>	<u>0.89*</u>	<u>(7.4)*</u>

n) Plastic Parts Coating: Business Machine

		<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Primer</u>	<u>0.14*</u>	<u>(1.2)*</u>
2)	<u>Color coat (non-</u> <u>texture coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
3)	<u>Color coat (texture</u> <u>coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
4)	<u>Electromagnetic</u> <u>interference/radio</u> <u>frequency interference</u> <u>(EMI/RFI) shielding coatings</u>	<u>0.48*</u>	<u>(4.0)*</u>
5)	<u>Specialty Coatings</u>		



A) <u>Soft coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
B) <u>Plating resist</u>	<u>0.71*</u>	<u>(5.9)*</u>
C) <u>Plating sensitizer</u>	<u>0.85*</u>	<u>(7.1)*</u>

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

#### Section 219.205 Daily-Weighted Average Limitations

No owner or operator of a coating line subject to the limitations of Section 219.204 of this ~~Part~~Subpart and complying by means of this Section shall operate the subject coating line unless the owner or operator has demonstrated compliance with subsection (a), (b), (c), (d), (e), ~~or (f), (g), or (h)~~ of this Section (depending upon the category of coating) through the applicable coating analysis test methods and procedures specified in Section 219.105(a) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(d) of this ~~Part~~Subpart:

- a) No owner or operator of a coating line subject to only one of the limitations from among Section 219.204(a)(1), (a)(4), (c), (d), (e), (f), ~~(g), (h)~~, or (i) of this ~~Part~~Subpart shall apply coatings on any such coating line, during any day, whose daily-weighted average VOM content exceeds the emission limitation to which the coatings are subject.
- b) No owner or operator of a miscellaneous metal parts and products coating line subject to the limitations of Section 219.204(j) of this ~~Part~~Subpart shall apply coatings to miscellaneous metal parts or products on the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section ~~below~~ are met.
  - 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(j) ~~above of this Subpart~~ during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 219.204(j) ~~above of this Subpart~~, during the same day, the owner or operator shall have a site-specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the

requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.

- c) No owner or operator of a can coating line subject to the limitations of Section 219.204(b) of this ~~Part~~Subpart shall operate the subject coating line using a coating with a VOM content in excess of the limitations specified in Section 219.204(b) of this ~~Part~~Subpart unless all of the following requirements are met:

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

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

where:

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

$i$  = Subscript denoting a specific coating applied;

$n$  = Total number of coatings applied in the can coating operation, i.e. all can coating lines at the source;

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

$C_i$  = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

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

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

where:

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

- d) No owner or operator of a heavy off-highway vehicle products coating line subject to the limitations of Section 219.204(k) of this ~~Part~~Subpart shall apply coatings to heavy off-highway vehicle products on the subject coating line unless the requirements of subsection (d)(1) or (d)(2) ~~below~~of this Section are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(k) ~~above~~of this Subpart, during the same

day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or

- 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 219.204(k) ~~above of this Subpart~~, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.
- e) No owner or operator of a wood furniture coating line subject to the limitations of Section 219.204(l) of this ~~Part~~ Subpart shall apply coatings to wood furniture on the subject coating line unless the requirements of subsection (e)(1) or subsection (e)(2) ~~below of this Section~~, in addition to the requirements specified in the note to Section 219.204(l) of this ~~Part of this Subpart~~, are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(l) ~~above of this Subpart~~, during the same day (e.g., all coatings used on the line are subject to 0.67 kg/l [5.6 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 219.204(l) ~~above of this Subpart~~, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and approved by the USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) 51 Fed. Reg. 43814 (December 4, 1986), must be satisfied.
- f) No owner or operator of a plastic parts coating line subject to the limitations of Section 219.204(m) or (n) of this Subpart shall apply coatings to business machine or automotive/transportation plastic parts on the subject coating line unless the requirements of subsection (f)(1) or (f)(2) of this Section are met.

- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(m) or (n) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 219.204(m) or (n) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.
- g) No owner or operator of a metal furniture coating line subject to the limitations of Section 219.204(g) of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (g)(1) or (g)(2) of this Section are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same numerical emission limitation within Section 219.204(g) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or
  - 2) For each coating line which applies coatings subject to more than one numerical emission limitation in Section 219.204(g) of this Subpart, during the same day, the owner or operator shall have a site specific proposal approved by the Agency and USEPA as a SIP revision. To receive approval, the requirements of USEPA's Emissions Trading Policy Statement (and related policy) must be satisfied.
- h) No owner or operator of a large appliance coating line subject to the limitations of Section 219.204(h) of this Subpart shall apply coatings on the subject coating line unless the requirements of subsection (h)(1) or (h)(2) of this Section are met.
- 1) For each coating line which applies multiple coatings, all of which are subject to the same

numerical emission limitation within Section 219.204(h) of this Subpart, during the same day (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to the category of coating used, or

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

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

#### Section 219.207 Alternative Emission Limitations

- a) Any owner or operator of a coating line subject to Section 219.204 of this ~~Part~~Subpart may comply with this Section, rather than with Section 219.204 of this ~~Part~~Subpart, if a capture system and control device are operated at all times the coating line is in operation and the owner or operator demonstrates compliance with subsection (c), (d), (e), (f), (g), ~~or (h), (i), or (j)~~ of this Section (depending upon the source category) through the applicable coating analysis and capture system and control device efficiency test methods and procedures specified in Section 219.105 of this Part and the recordkeeping and reporting requirements specified in Section 219.211(e) of this ~~Part~~Subpart; and the control device is equipped with the applicable monitoring equipment specified in Section 219.105(d) of this Part and the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use. A capture system and control device, which does not demonstrate compliance with subsection (c), (d), (e), (f), (g), ~~or (h), (i), (j), or (k)~~ of this Section may be used as an alternative to compliance with Section 219.204 of this ~~Part~~Subpart only if the alternative is approved by the Agency and approved by the USEPA as a SIP revision.
- b) Alternative Add-On Control Methodologies
- 1) The coating line is equipped with a capture system and control device that provides 81 percent reduction in the overall emissions of VOM from the

coating line and the control device has a 90 percent efficiency, or

- 2) The system used to control VOM from the coating line is demonstrated to have an overall efficiency sufficient to limit VOM emissions to no more than what is allowed under Section 219.204 of this ~~Part~~Subpart. Use of any control system other than an afterburner, carbon adsorption, condensation, or absorption scrubber system can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. The use of transfer efficiency credits can be allowed only if approved by the Agency and approved by the USEPA as a SIP revision. Baseline transfer efficiencies and transfer efficiency test methods must be approved by the Agency and the USEPA.

Such overall efficiency is to be determined as follows:

- A) Obtain the emission limitation from the appropriate subsection in Section 219.204 of this ~~Part~~Subpart;
- B) Calculate "S" according to the equation in Section 219.206 of this ~~Part~~Subpart;
- C) Calculate the overall efficiency required according to Section 219.105(e) of this Part. For the purposes of calculating this value, according to the equation in Section 219.105(e)(2) of this Part,  $VOM_1$  is equal to the value of "S" as determined above in subsection (b)(2)(B) of this Section.
- c) No owner or operator of a coating line subject to only one of the emission limitations from among Section 219.204(a)(1), (a)(4), (c), (d), (e), (f), ~~(g)~~, ~~(h)~~ or (i) of this ~~Part~~Subpart and equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met. No owner or operator of a coating line subject to Section 219.204(a)(2) or (a)(3) of this Part and equipped with a capture system and control device shall operate the coating line unless the owner or operator demonstrates compliance with such limitation in accordance with the topcoat protocol referenced in Section 219.105(b) of this Part.
- d) No owner or operator of a miscellaneous metal parts and products coating line which applies one or more coatings during the same day, all of which are subject

to the same numerical emission limitation within Section 219.204(j) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met.

- e) No owner or operator of a heavy off-highway vehicle products coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(k) ~~Part of this Subpart~~ (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) ~~above of this Section~~ are met.
- f) No owner or operator of a wood furniture coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(l) of this ~~Part~~Subpart (e.g., all coatings used on the line are subject to 0.67 kg/l [5.6 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met. If compliance is achieved by meeting the requirements in subsection (b)(2) of this ~~Part~~Section, then the provisions in the note to Section 219.204(l) of this ~~Part~~Subpart must also be met.
- g) No owner or operator of a can coating line and equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection ~~(h)~~(g)(1) or ~~(h)~~(g)(2) ~~below of this Section~~ are met.
- 1) An alternative daily emission limitation for the can coating operation, i.e. for all of the can coating lines at the source, shall be determined according to Section 219.205(c)(2) of this ~~Part~~Subpart. Actual daily emissions shall never exceed the alternative daily emission limitation and shall be calculated by use of the following equation:

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

where:



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

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

h) No owner or operator of a plastic parts coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(m) or (n) of this Subpart (e.g., all coatings used on the line are subject to 0.42 kg/l [3.5 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.

i) No owner or operator of a metal furniture coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(g) of this Subpart (e.g., all coatings used on the line are subject to

0.34 kg/l [2.8 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.

- j) No owner or operator of a large appliance coating line which applies one or more coatings during the same day, all of which are subject to the same numerical emission limitation within Section 219.204(h) of this Subpart (e.g., all coatings used on the line are subject to 0.34 kg/l [2.8 lbs/gal]), and which is equipped with a capture system and control device shall operate the subject coating line unless the requirements in subsection (b)(1) or (b)(2) of this Section are met.

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

#### Section 219.208 Exemptions From Emission Limitations

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

## b) Applicability for wood furniture coating

1) The limitations of this Subpart shall apply to a source's wood furniture coating lines if the source contains process emission units, not regulated by Subparts B, E, F (excluding Section 219.204(1) of this ~~Part~~Subpart), H (excluding Section 219.405 of this Part), Q, R, S, T (excluding Section 219.486 of this Part), V, X, Y, Z or BB of this Part, which as a group both:

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

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

- A) Are not regulated by Subparts B, E, F (excluding Section 219.204(1) of this Subpart), H, Q, R, S, T (excluding Section 219.486 of this Part), V, X, Y, Z or BB of this Part; and
- B) Are not included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.

23) If a source ceases to fulfill the criteria of subsections (b)(1) or (b)(2) of this Section, the limitations of Section 219.204(1) of this ~~Part~~Subpart shall continue to apply to any wood

furniture coating line which was ever subject to the limitations of Section 219.204(1) of this ~~Part~~Subpart.

- 34) For the purposes of subsection (b) of this Section, an emission unit shall be considered to be regulated by a Subpart if it is subject to the limitations of that Subpart. An emission unit is not considered regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.
- 45) Any owner or operator of a wood furniture coating line to which the limitations of this Subpart are not applicable due to the criteria in subsection (b) of this Section shall, upon request by the Agency or the USEPA, submit records to the Agency and the USEPA within 30 calendar days from the date of the request that document that the coating line is exempt from the limitations of this Subpart.

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

#### Section 219.210 Compliance Section

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

- a) No owner or operator of a coating line which is exempt from the limitations of Section 219.204 of this ~~Part~~ Subpart because of the criteria in Section 219.208(a) of this ~~Part~~ Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Section 219.211(b) of this ~~Part~~ Subpart. Wood furniture coating lines are not subject to Section 219.211(b) of this ~~Part~~ Subpart.
- b) No owner or operator of a coating line complying by means of Section 219.204 of this ~~Part~~ Subpart shall operate said coating line on or after a date consistent with Section 219.106 of this Part, unless the owner or operator has complied with, and continues to comply with, Sections 219.204 and 219.211(c) of this ~~Part~~ Subpart.

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

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

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

- a) On and after March 15, 1996, any owner or operator of a coating line subject to the limitations set forth in Section 219.204 of this Subpart, and with coating lines in operation prior to January 1, 1991 ("pre-existing coating lines"), may, for pre-existing coating lines only, elect to comply with the requirements of this Section, rather than complying with the applicable emission limitations set forth in Section 219.204, if an operational change of the type described below has been made after January 1, 1991, to one or more pre-

existing coating lines at the source. An operational change occurs when a pre-existing coating line is replaced with a line using lower VOM coating for the same purpose as the replaced line ("replacement line"). A source electing to rely on this Section to demonstrate compliance with the requirements of this Subpart shall operate pursuant to federally enforceable permit conditions approved by the Agency and USEPA.

b) An owner or operator of pre-existing coating lines subject to a VOM content limitation in Section 219.204 of this Subpart and electing to rely on this Section to demonstrate compliance with this Subpart must establish, by use of the equations in subsection (c) of this Section, that the calculated actual daily VOM emissions from all participating coating lines, as defined below, are less than the calculated daily allowable VOM emissions from the same group of coating lines. For any pre-existing coating line to be aggregated for the purposes of Section 219.212, 219.213, or 219.214 of this Subpart ("participating coating lines"), the source must establish that:

- 1) All coatings applied on the participating coating line shall, at all times, have a VOM content less than or equal to the applicable VOM content limitation for such coating listed in Appendix H of this Part; and
- 2) On the date the source elects to rely on this Section to demonstrate compliance with this Subpart, all coatings applied on the participating coating line are not already in compliance with the VOM content limitation for such coating effective on or after March 15, 1996; or the participating coating line is a replacement line, as defined in subsection (a) of this Section with an operational change occurring on or after January 1, 1991.

(c) To demonstrate compliance with this Section, a source shall establish the following:

- 1) An alternative daily emission limitation shall be determined for all participating coating lines at the source according to subsection (c)(2) of this Section. Actual daily emissions from participating coating lines ( $E_d$ ) shall never exceed the alternative daily emission limitation ( $A_d$ ) and shall be calculated by use of the following equation:

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

where:

E<sub>d</sub> = Actual daily VOM emissions from participating coating lines in units of kg/day (lbs/day);

i = Subscript denoting a specific coating applied;

n = Total number of coatings applied by all participating coating lines at the source;

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

C<sub>i</sub> = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM).

2) The alternative daily emission limitation (A<sub>d</sub>) shall be determined for all participating coating lines at the source on a daily basis as follows:

$$A_d = A_n + A_p$$

where A<sub>n</sub> and A<sub>p</sub> are defined in subsections (2)(A) and (2)(B) of this subsection.

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

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

where:

A<sub>n</sub> = The VOM emissions allowed for the day in units of kg/day (lbs/day);

i = Subscript denoting a specific coating applied;

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

C<sub>i</sub> = The VOM content of each coating as applied in units of kg VOM/l (lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM);

D<sub>i</sub> = The density of VOM in each coating applied. For the purposes of calculating A<sub>p</sub>, the density is 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

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

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

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

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

where:

A<sub>p</sub> = The VOM emissions allowed for the day in units of kg/day (lbs/day);

h = Subscript denoting a specific powder coating line;

j = Subscript denoting a specific powder coating applied;

m = Total number of participating powder coating lines;



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

D<sub>j</sub> = The assumed density of VOM in liquid coating, 0.882 kg VOM/l VOM (7.36 lbs VOM/gal VOM);

V<sub>j</sub> = Volume of each powder coating consumed for the day in units of l (gal) of coating;

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

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

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

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

Section 219.213

Recordkeeping and Reporting for Cross-Line Averaging Participating Coating Lines

Any owner or operator of a coating line that elects to comply by means of Section 219.212 of this Subpart shall establish the following:

- a) By the date consistent with Section 219.210(f) of this Subpart, or upon initial start-up of a new coating line replacing a pre-existing coating line, as defined in Section 219.212 of this Subpart, or upon changing the method of compliance for a pre-existing coating line from the requirements of Section 219.204 or Section 219.207 of this Subpart to the requirements of Section 219.212 of this Subpart, the owner or operator of the source shall certify to the Agency that each participating coating line, as determined in Section 219.212 of this Subpart, will be in compliance with Section 219.212 of this Subpart on and after a date consistent with Section 219.210(f) of this Subpart, or on and after the initial start-up date of such participating coating lines. Such certification shall also include:
  - 1) The name and identification number of each participating coating line;
  - 2) The name and identification number of each coating as applied on each participating coating line;
  - 3) The weight of VOM per volume of each coating and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each participating coating line;
  - 4) The instrument or method by which the owner or operator will accurately measure or calculate the volume of each coating as applied each day on each participating coating line;
  - 5) The method by which the owner or operator will create and maintain records each day as required in subsection (b) of this Section;
  - 6) An example of the format in which the records required in subsection (b) of this Section will be kept;
  - 7) A statement that all coatings used on participating coating lines have a VOM content less than or equal to the applicable VOM limitation for such coating set forth in Appendix H of this Part, and that all lines either:
    - A) Underwent a change in operations incorporating a lower VOM coating on each

applicable participating coating line after the date of January 1, 1991; or

- B) Are not in compliance and continued compliance with the coating limitations in Section 219.204 of this Subpart, compliance with which is required on or after March 15, 1996.
- 8) The method by which the owner or operator has calculated K, for the equation contained in Section 219.212(c)(2)(B) of this Subpart, if applicable.
- b) On and after a date consistent with Section 219.210(f) of this Subpart, or on and after the initial start-up date, the owner or operator of a source electing to comply with the requirements of this Subpart by means of Section 219.212 of this Subpart shall collect and record the following information on a daily basis for each participating coating line and maintain the information at the source for a period of three years:
- 1) The name and identification number of each coating as applied on each participating coating line;
  - 2) The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied on each participating coating line on a daily basis; and
  - 3) The daily weighted average VOM content of all coatings as applied on each coating line as defined at 35 Ill. Adm. Code 211.1230.
- c) On and after a date consistent with Section 219.210(f) of this Subpart, the owner or operator of participating coating lines shall:
- 1) Notify the Agency within 30 days following an occurrence of a violation of Section 219.212 of this Subpart; and
  - 2) Send to the Agency any record showing a violation of Section 219.212 of this Subpart within 30 days following the occurrence of a violation.

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

- a) At least 30 calendar days before changing the method of compliance with this Subpart from Section 219.212 of this Subpart to Section 219.204 or Section 219.207 of this Subpart, the owner or operator of a source relying on Section 219.212 to demonstrate compliance with this Subpart for one or more pre-existing coating lines shall comply with all requirements of Section 219.211 (c)(1) or (e)(1) of this Subpart, respectively.
- b) Upon changing the method of compliance with this Subpart from Section 219.212 to Section 219.204 or Section 219.207 of this Subpart, the owner or operator of a source shall comply with the requirements of Section 219.211 (c) or (e) of this Subpart, respectively.
- c) The owner or operator shall certify that all remaining participating coating lines, if any, comply and continue to comply with the requirements of Section 219.212 of this Subpart.

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

SUBPART Q: ~~LEAKS FROM~~ SYNTHETIC ORGANIC CHEMICAL AND POLYMER  
MANUFACTURING PLANT

Section 219.431      Applicability

- a) The requirements of this Subpart shall apply to every owner or operator of any chemical manufacturing process unit that manufactures, as a primary product, one or more of the chemicals listed in Appendix A of this Part and that chemical manufacturing process unit causes or allows any reactor or distillation unit, either individually or in tandem, to discharge one or more process vent streams either directly to the atmosphere or to a recovery system.
- b) Notwithstanding subsection (a) of this Section, the control requirements set forth within Section 219.432 of this Subpart shall not apply to the following:
- 1) Any process vent stream with a total resource effectiveness (TRE) index value greater than 1.0. However, such process vent stream remains subject to the performance testing requirements contained in Section 219.433 of this Subpart and the reporting and recordkeeping requirements contained in Section 219.435 of this Subpart;
  - 2) Any reactor or distillation unit that is designed and operated as a batch operation;

- 3) Any reactor or distillation unit that is part of a polymer manufacturing operation;
- 4) Any reactor or distillation unit that is part of the chemical manufacturing process unit with a total design capacity of less than 1 gigagram (1,100 tons) per year for all chemicals produced, as a primary product, within that process unit. However, such operations remain subject to the reporting and recordkeeping requirements contained in Section 219.435(d) of this Subpart; or
- 5) Any vent stream with a flow rate less than 0.0085 scm/min or a total VOM concentration, less methane or ethane, of less than 500 ppmv as measured by Method 18 or a concentration of VOM of less than 250 ppmv as measured by Method 25A. However, such operations remain subject to the performance testing requirement listed in Section 219.433 of this Subpart, as well as the reporting and recordkeeping requirements contained in Section 219.435 of this Subpart.
- 6) Any reactor or distillation unit included within an Early Reduction Program, as specified in 40 CFR 63, and published in 59 Fed. Reg. 61970 (October 22, 1993), evidenced by a timely enforceable commitment approved by USEPA.

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

#### Section 219.432 Control Requirements

- a) Every owner or operator of a source subject to the requirements of this Subpart, as determined by Section 219.431 of this Subpart, shall either:
  - 1) Reduce emissions of VOM, less methane or ethane, by 98 weight-percent, or to 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent;
  - 2) If a boiler or process heater is used to comply with this Subpart, the vent stream shall be introduced into the flame zone of the boiler or process heater; or
  - 3) If a flare is used to comply with this Subpart it shall comply with the requirements of 40 CFR 60.18, incorporated by reference at Section 219.112 of this Part. The flare operation requirements of 40 CFR 60.18 do not apply if a process, not subject to this Subpart, vents an

emergency relief discharge into a common flare header and causes the flare servicing the process subject to this Subpart to not comply with one or more of the provisions of 40 CFR 60.18.

b) Notwithstanding subsection (a) or (c) of this Section, and subject to subsection (b)(2) of this Section:

1) No owner or operator of a source subject to Section 218.432 of this Subpart shall cause or allow VOM to be emitted through an existing control device unless the control device is operated to achieve:

A) 90 percent control of the VOM emissions vented to it; or

B) VOM emissions concentration of less than 50 ppmv, on a dry basis.

2) Any existing control device subject to subsection (a) of this Section is required to meet the 98 percent emissions limit set forth in subsection (a)(1) upon the earlier to occur of the date the control device is replaced for any reason, including, but not limited to, normal maintenance, malfunction, accident, and obsolescence, or December 31, 1999. A control device is considered to be replaced when:

A) All of the device is replaced; or

B) When the cost to repair the device or the cost to replace part of the device exceeds 50 percent of the cost of replacing the entire device with a device that complies with the 98% emissions limitation in subsection (a)(1) of this Section.

c) For each individual vent stream within a chemical manufacturing process unit with a TRE index value greater than 1.0, the owner or operator shall maintain process vent stream parameters that retain a calculated TRE index value greater than 1.0 by means of recovery. Any recovery device shall have as its primary purpose the capture of chemicals for use, reuse, or sale. The TRE index value shall be calculated at the outlet of the final recovery device.

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

- a) For the purpose of demonstrating compliance with the TRE index value in Section 219.432(c) of this Subpart, an engineering assessment shall be made to determine process vent stream flow rate, net heating value, and VOM emission rate for the representative operating conditions expected to yield the lowest TRE index value. The source shall also calculate the TRE index values pursuant to the equations contained within Appendix G (b)(1) of this Part.
- 1) If the TRE index value calculated using such engineering assessment and the TRE equation in Appendix G (b)(1) of this Part is greater than 4.0, then the owner or operator is exempt from performing the measurements specified in Appendix G (a) of this Part.
  - 2) If the TRE index value calculated using such engineering assessment and the TRE equation in Appendix G (b)(1) of this Part is less than or equal to 4.0, then the owner or operator shall perform the measurements specified in Appendix G(a) of this Part. An owner or operator of a source may, in the alternative, elect to comply with the control requirements specified in Section 219.432 of this Subpart rather than performing the measurements in Appendix G(a) of this Part.
  - 3) An engineering assessment shall include, but is not limited to, the following:
    - A) Previous test results, provided the tests are representative of current operating practices at the chemical manufacturing process unit;
    - B) Bench-scale or pilot-scale test data of the process under representative operating conditions;
    - C) Maximum flow rate, as stated within a permit limit, applicable to the process vent;
    - D) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to, the following:
      - i) Use of material balances based on process stoichiometry to estimate maximum VOM concentrations;

- ii) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;
  - iii) Estimation of VOM concentrations based on saturation conditions; and
  - iv) Estimation of maximum expected net heating value based on the stream concentration of each organic compound, or, alternatively, as if all VOM in the stream were the compound with the highest heating value.
- E) All data, assumptions, and procedures used in the engineering assessment shall be documented.
- b) For the purpose of demonstrating compliance with the control requirements in Section 219.432 of this Subpart, the chemical manufacturing process unit shall be run at representative operating conditions and flow rates during any performance test.
- c) The following methods in 40 CFR 60, incorporated by reference at Section 219.112 of this Part, shall be used to demonstrate compliance with the reduction efficiency requirement listed in Section 219.432(a)(1) of this Subpart.
- 1) Method 1 or 1A, incorporated by reference at Section 219.112 of this Part, as appropriate, for selection of the sampling sites. The control device inlet sampling site for determination of vent stream molar composition or VOM content, less methane and ethane, reduction efficiency shall be located after the last recovery device but prior to the inlet of the control device, prior to any dilution of the process vent stream, and prior to release to the atmosphere.
  - 2) Method 2, 2A, 2C, or 2D, incorporated by reference at Section 219.112 of this Part, as appropriate, for determination of gas stream volumetric flow rate.
  - 3) The emission rate correction factor, integrated sampling, and analysis procedure of Method 3, incorporated by reference at Section 219.112 of this Part, shall be used to determine the oxygen concentration (%O<sub>2d</sub>) for the purpose of determining compliance with the 20 ppmv limitation. The sampling site for determining compliance with the 20 ppmv limitation shall be the same site used for the VOM samples, and samples shall be taken at the



same time that the VOM samples are taken. The VOM concentration corrected to 3 percent oxygen (C<sub>c</sub>) shall be computed using the following formula:

$$C_c = C_{VOM} \times \frac{17.9}{20.9 - \%O_{2d}}$$

where:

C<sub>c</sub> = Concentration of VOM (minus methane and ethane) corrected to 3 percent O<sub>2</sub>, dry basis, ppmv.

C<sub>VOM</sub> = Concentration of VOM (minus methane and ethane), dry basis, ppmv

%O<sub>2d</sub> = Concentration of oxygen, dry basis, percent by volume.

4) Method 18, incorporated by reference at Section 219.112 of this Part, to determine the concentration of VOM, less methane and ethane, at the outlet of the control device when determining compliance with the 20 ppmv limitation in Section 219.432(a)(1) of this Subpart, or at both the control device inlet and outlet when the reduction efficiency of the control device is to be determined.

A) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used then the samples shall be taken at 15-minute intervals.

B) The emission reduction (R) of VOM, less methane and ethane, shall be determined using the following formula:

$$R = \frac{(E_i - E_o)}{E_i} \times 100$$

where:

R = Emission reduction, percent by weight.

E<sub>i</sub> = Mass rate of VOM (minus methane and ethane) entering the control device, kg VOM/hr.

$E_o$  = Mass rate of VOM, less methane and ethane discharged to the atmosphere, kg VOM/hr.

C) The mass rates of VOM ( $E_i$ ,  $E_o$ ) shall be computed using the following formula:

$$E_i = K_2 \frac{\sum_{j=1}^n C_{ij} M_{ij}}{j=1} Q_i$$

$$E_o = K_2 \frac{\sum_{j=1}^n C_{oj} M_{oj}}{j=1} Q_o$$

where:

$C_{ij}$ ,  $C_{oj}$  = Concentration of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, dry basis, ppmv.

$M_{ij}$ ,  $M_{oj}$  = Molecular weight of sample component "j" of the gas stream at the inlet and outlet of the control device, respectively, grams per gram-mole.

$Q_i$ ,  $Q_o$  = Flow rate of gas stream at the inlet and outlet of the control device, respectively, dry scm/min.

$K_2$  =  $2.494 \times 10^{-6}$  (liters per minute)(gram-mole per scm)(kg/g)(min/hr), where standard temperature for (gram-mole per scm) is 20°C.

D) The representative VOM concentration ( $C_{VOM}$ ) is the sum of each of the individual components of VOM ( $C_j$ ) and shall be computed for each run using the following:

$$C_{VOM} = \frac{\sum_{j=1}^n C_j}{j=1}$$

where:

$C_{\text{VOM}}$  = Concentration of VOM (minus methane and ethane), dry basis, ppmv.

$C_j$  = Concentration of sample component "j", dry basis, ppmv.

$n$  = Number of components in the sample.

5) When a boiler or process heater with a design heat input capacity of 44 megawatts or greater, or a boiler or process heater into which the process vent stream is introduced with the primary fuel, is used to comply with the control requirements, an initial performance test is not required.

d) When a flare is used to comply with the control requirements of this rule, the flare shall comply with the requirements of 40 CFR 60.18, incorporated by reference at Section 219.112 of this Part.

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

Section 219.434 Monitoring Requirements

a) The owner or operator of a source subject to the control requirements in Section 219.432 of this Subpart that uses an incinerator to comply with the VOM emission limitation specified in Section 219.432 (a)(1) shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder and having an accuracy of  $\pm 1$  percent of the temperature measured expressed in degrees Celsius, or  $\pm 0.5^\circ\text{C}$ , whichever is greater.

1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.

2) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

b) The owner or operator of a source that uses a flare to comply with Section 219.432(a)(2) of this Subpart shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame.

- c) The owner or operator of a source that uses a boiler or process heater with a design heat input capacity less than 44 megawatts to comply with Section 219.432(a)(1) of this Subpart shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a temperature monitoring device in the firebox. The monitoring device shall be equipped with a continuous recorder with an accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater. Any boiler or process heater in which all vent streams are introduced with primary fuel is exempt from this requirement.
- d) The owner or operator of a process vent with a TRE index value of 4.0 or less that uses one or more product recovery devices shall install either an organic monitoring device equipped with a continuous recorder or the monitoring equipment specified in subsections (d)(1), (d)(2), (d)(3), or (d)(4) of this Section, depending on the type of recovery device used. All monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications.
- 1) Where an absorber is the final recovery device in the recovery system, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each equipped with a continuous recorder, shall be used.
  - 2) Where a condenser is the final recovery device in the recovery system, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of  $\pm 1$  percent of the temperature being monitored expressed in degrees Celsius or  $\pm 0.5^{\circ}\text{C}$ , whichever is greater.
  - 3) Where a carbon absorber is the final recovery device in the recovery system, an integrating regeneration stream flow monitoring device having an accuracy of  $\pm 10$  percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device having an accuracy of  $\pm 1$  percent of the temperature being monitored expressed in degrees Celsius of  $\pm 0.5^{\circ}\text{C}$ , capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.
  - 4) Where a scrubber is used with an incinerator, boiler, or, in the case of halogenated vent

streams, a process heater, the following monitoring equipment is required for the scrubber:

- A) A pH monitoring device equipped with a continuous recorder to monitor the pH of the scrubber effluent; and
  - B) Flow meters equipped with a continuous recorder at the scrubber influent for liquid flow and the scrubber inlet for gas stream flow.
- e) The owner or operator of a process vent using a vent system that contains bypass lines capable of diverting a vent stream away from the control device associated with a process vent shall comply with either (e)(1) or (e)(2) of this Section. Equipment needed for safety purposes, including, but not limited to, pressure relief devices, are not subject to this subsection.
- 1) The owner or operator shall install, calibrate, maintain, and operate a flow indicator that provides a record of vent stream flow at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.
  - 2) The owner or operator shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.
- f) The owner or operator of a process vent may monitor by an equivalent alternative means or parameters other than those listed in subsections (a) through (d) of this Section. Any equivalent alternative shall be approved by the Agency and USEPA, and contained in the source's operating permit as federally enforceable permit conditions.

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

Section 219.435 Recordkeeping and Reporting Requirements

- a) Every owner or operator of a reactor or distillation unit with a TRE index value of 4.0 or less shall keep records, for a minimum of 3 years, of the following parameters measured during a performance test or TRE

determination required under Section 219.433 of this Subpart, and required to be monitored under Section 219.434 of this Subpart.

- 1) Every owner or operator of a source that seeks to demonstrate compliance with Section 219.432(a)(1) of this Subpart through the use of either a thermal or catalytic incinerator shall maintain records of the following:
  - A) The average firebox temperature of the incinerator (or the average temperature upstream and downstream of the catalyst bed for a catalytic incinerator), measured at least every 15 minutes and averaged over the same time period of the performance testing; and
  - B) The percent reduction of VOM determined as specified in Section 219.433(c) of this Subpart achieved by the incinerator, or the concentration of VOM (ppmv, by compound) determined as specified in Section 219.433(c) of this Subpart at the outlet of the control device, on a dry basis, corrected to 3 percent oxygen.
  
- 2) Every owner or operator of a source that seeks to demonstrate compliance with Section 219.432(a)(1) of this Subpart through the use of a boiler or process heater shall maintain the records described below. Any boiler or process heater in which all vent streams are introduced with primary fuel are exempt from these requirements.
  - A) A description of the location at which the vent stream is introduced into the boiler or process heater; and
  - B) The average combustion temperature of the boiler or process heater with a design heat input capacity of less than 44 megawatt measured at least every 15 minutes and averaged over the same time period of the performance testing.
  
- 3) Every owner or operator of a source that seeks to demonstrate compliance with Section 219.432(a)(2) of this Subpart through use of a smokeless flare, or flare design (i.e., steam-assisted, air-assisted, or nonassisted), shall maintain records of all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the

performance test, continuous records of the flare pilot flame monitoring, and records of all periods of operations during which the pilot flame is absent.

- 4) Every owner or operator of a source that seeks to demonstrate compliance with Section 219.432(b) of this Subpart shall maintain records of the following:
- A) Where an absorber is the final recovery device in the recovery system, the exit specific gravity (or alternative parameter which is a measure of the degree of absorbing liquid saturation, if approved by the Agency and USEPA, and average exit temperature of the absorbing liquid measured at least every 15 minutes and averaged over the same time period as the performance testing (both measured while the vent stream is normally routed and constituted);
  - B) Where a condenser is the final recovery device in the recovery system, the average exit (product side) temperature measured at least every 15 minutes and averaged over the same time period as the performance testing while the vent stream is normally routed and constituted;
  - C) Where a carbon absorber is the final recovery device in the recovery system, the total stream mass or volumetric flow measured at least every 15 minutes and averaged over the same time period as the performance testing (full carbon bed cycle), the temperature of the carbon bed after regeneration (and within 15 minutes of completion of any cooling cycle(s)), and duration of the carbon bed steaming cycle (all measured while the vent stream is normally routed and constituted);
  - D) As an alternative to subsection (a)(4)(A), (a)(4)(B) or (a)(4)(C) of this Section, the concentration level or reading indicated by the organic monitoring device at the outlet of the absorber, condenser, or carbon absorber, measured at least every 15 minutes and averaged over the same time period as the performance testing (measured while the vent stream is normally routed and constituted);  
or

- E) All measurements and calculations performed to determine the flow rate, VOM concentration, heating value, and TRE index value of the vent stream.
- b) Every owner or operator of a reactor or distillation unit with a TRE index value of less than 4.0 shall be subject to the exceedance reporting requirements of the draft Enhanced Monitoring Guidelines as published at 58 Fed. Reg. 54648 (October 22, 1993).
- c) Every owner or operator of a source seeking to comply with Section 219.432(b) of this Subpart shall maintain records of the following:
- 1) Any changes in production capacity, feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or reactors and distillation units; and
  - 2) Any recalculation of the flow rate, VOM concentration, or TRE index value calculated according to Section (c) of Appendix G of this Part.
- d) Every owner or operator of a source claiming a design capacity of less than 1 gigagram (1,100 tons) per year, as contained in Section 219.431(b) of this Subpart, shall maintain records of the design capacity or any changes in equipment or operations that may affect the design capacity.
- e) Every owner or operator of a source claiming a vent stream flow rate or vent stream concentration exemption level, as contained in Section 219.431(b)(5) of this Subpart, shall maintain records to indicate that the stream flow rate is less than 0.0085 scm/min or the vent stream concentration is less than 500 ppmv.

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

Section 219.436 Compliance Date

Every owner or operator of an source subject to Sections 219.431, 219.432, 219.433, 219.434 or 219.435 of this Subpart shall comply with its standards, limitations and mandates by March 15, 1996.

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

SUBPART FF: BAKERY OVENS

Section 219.720 Applicability



- a) The provisions of this Subpart shall apply to every owner or operator of a source which operates a bakery oven, as defined at 35 Ill. Admin. Code 211.680, unless the source bakes products only for on-site human consumption or on-site retail sale.
- b) Notwithstanding subsection (a) of this Section, a source is required to comply with the control requirements of this Subpart only if the source has the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in the aggregate, from all emission units at the source, excluding:
- 1) Emission units regulated by Subparts B, E, F, H, Q, R, S, T (excluding Section 219.486 of this Part), V, X, Y, Z or BB of this Part; and
  - 2) Emission units that are included in any of the following categories: synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture coating, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations.
- c) Every owner or operator of a source which has limited its potential to emit below 22.7 Mg (25 tons) of VOM per year, as specified in subsection (b) of this Section, through federally enforceable permit conditions is not required to comply with this Subpart.
- d) Every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart because of the criteria in subsection (b) of this Section remains subject to the recordkeeping and reporting requirements of Section 219.728(b) of this Subpart and the certification requirements in Section 219.730(d) of this Subpart.

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

Section 219.722 Control Requirements

- a) Every owner or operator of a source subject to the control requirements of this Subpart shall comply with the requirements of subsection (a)(1) or (a)(2) of this Section for each bakery oven with a rated heat input capacity of at least 2 mmbtu/hr or at least 586 kW:
- 1) Operate emissions capture and control equipment which achieves an overall reduction in

uncontrolled VOM emissions of at least 81 percent from each such bakery oven; or

2) Provide an equivalent alternative control plan for such bakery ovens at the source which has been approved by the Agency and USEPA through federally enforceable permit conditions or as a SIP revision.

b) Any bakery oven that becomes subject to the requirements of this Subpart at any time shall remain subject to the requirements of this Subpart at all times thereafter.

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

Section 219.726            Testing

a) Upon request by the Agency, the owner or operator of a bakery oven shall, at its own expense, conduct such tests in accordance with the applicable test methods and procedures specified in Section 219.105(f) of this Part to demonstrate compliance with the control requirements of this Subpart and shall:

1) Notify the Agency 30 days prior to conducting such tests; and

2) Submit all test results to the Agency within 30 days of conducting such tests.

b) Nothing in this Section shall limit the authority of USEPA pursuant to the Clean Air Act (CAA) to require testing, or shall affect the authority of USEPA under Section 114 of the CAA (42 U.S.C. 7414 (1990)).

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

Section 219.727            Monitoring

a) Every owner or operator of a bakery oven subject to the control requirements of this Subpart shall install and operate at all times a device to continuously monitor the following parameters for each type of control device as follows:

1) For catalytic oxidizers, the inlet and outlet temperatures of the oxidizer;

2) For regenerative oxidizers, the temperature in the combustion chamber; or

- 3) For thermal incinerators, the temperature in the combustion chamber.
- b) The owner or operator may monitor with an alternative method or monitor other parameters if approved by the Agency and USEPA through federally enforceable permit conditions or as a SIP revision.

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

Section 219.728

Recordkeeping and Reporting

- a) Every owner or operator of a bakery oven shall maintain the following records for the most recent consecutive 3 year period for all bakery ovens subject to the control requirements of this Subpart. Such records shall be made available to the Agency immediately upon request.
- 1) Parameters for control devices as monitored pursuant to Section 219.727 of this Subpart;
  - 2) Hrs/day of operation of each bakery oven;
  - 3) Factors necessary to calculate VOM emissions for all bakery ovens including, but not limited to, type of dough used for each yeast-leavened baked product, initial yeast percentage for each product, total fermentation time for each product, any additional percentage of yeast added, and the fermentation time of any additional yeast;
  - 4) Calculated daily VOM emissions of each bakery oven expressed as lbs/day;
  - 5) Total amount of each type of yeast-leavened bread product produced by each bakery oven expressed as lbs/day.
- b) Every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart because of the criteria in Section 219.720(b) of this Subpart shall maintain records necessary to demonstrate that its potential to emit is less than 22.7 Mg (25 tons) of VOM per year, as specified in Section 219.720(b). Such records shall be maintained for the most recent consecutive 3 year period and shall be made available to the Agency immediately upon request.

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

Section 219.729

Compliance Date

On and after March 15, 1996, upon initial startup or upon modification, every owner or operator of a source subject to this Subpart shall comply with the requirements of this Subpart.

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

Section 219.730 Certification

- a) Every owner or operator of a source subject to the control requirements of this Subpart shall certify compliance with this Subpart on or before a date consistent with Section 219.729 of this Subpart.
- b) If an owner or operator of a bakery oven subject to the control requirements of this Subpart changes the method of compliance, the owner or operator shall certify compliance with the requirements of this Subpart for the alternative method upon changing the method of compliance.
- c) All certifications of compliance with this Subpart shall include the results of all tests and the calculations performed to demonstrate that each oven at the source is in compliance with, or is exempt from, the control requirements of this Subpart. The certification shall include the following:
  - 1) The name and identification number of each oven and any associated capture and control device;
  - 2) The maximum rated heat input of each oven;
  - 3) A classification of each oven as either a "bakery oven" as defined in 35 Ill. Admin. Code 211.680 or an oven used exclusively to bake non-yeast-leavened products;
  - 4) The capture and control efficiency of each bakery oven control device;
  - 5) Test reports, calculations, and other data necessary to demonstrate that the capture and control efficiency of each bakery oven control device achieves an overall reduction in uncontrolled VOM emissions of at least 81 percent; and
  - 6) The date each bakery oven control device was installed and operating.
- d) On or before March 15, 1996, or upon initial startup, every owner or operator of a bakery oven which is exempt from the control requirements of this Subpart

because of the criteria in Section 219.720(b) of this Subpart shall certify that its potential to emit is less than 22.7 Mg (25 tons) of VOM per year, as specified in Section 219.720(b).

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

SUBPART PP: MISCELLANEOUS FABRICATED PRODUCT  
MANUFACTURING PROCESSES

Section 219.926 Control Requirements

Every owner or operator of a miscellaneous fabricated product manufacturing process emission unit subject to this Subpart shall comply with the requirements of subsection (a), (b) or (c) of this Section:

- a) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or  
  
(Board Note: For the purpose of this provision, an emission unit is any part or activity at a source of a type that by itself is subject to control requirements in other Subparts of this Part or 40 CFR 60, incorporated by reference in Section 219.112, e.g., a coating line, a printing line, a process unit, a wastewater system, or other equipment, or is otherwise any part or activity at a source.)
- b) For coating lines, the daily-weighted average VOM content shall not exceed 0.42 kg VOM/l (3.5 lbs VOM/gal) of coating as applied (minus water and any compounds which are specifically exempted from the definition of VOM) during any day. Owners and operators complying with this Section are not required to comply with Section 219.301 of this Part, or
- c) An equivalent alternative control plan which has been approved by the Agency and the USEPA in a federally enforceable permit or as a SIP revision.

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

Section 219.946 Control Requirements

Every owner or operator of a miscellaneous formulation manufacturing process emission unit subject to this Subpart shall comply with the requirements of subsection (a) or (b) below of this Section.

- a) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or

(Board Note: For the purpose of this provision, an emission unit is any part or activity at a source of a type that by itself is subject to control requirements in other Subparts of this Part or 40 CFR 60, incorporated by reference in Section 219.112, e.g., a coating line, a printing line, a process unit, a wastewater system, or other equipment, or is otherwise any part or activity at a source.)

- b) An equivalent alternative control plan which has been approved by the Agency and the USEPA in a federally enforceable permit or as a SIP revision.

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

SUBPART RR: MISCELLANEOUS ORGANIC  
CHEMICAL MANUFACTURING PROCESSES

Section 219.966 Control Requirements

Every owner or operator of an miscellaneous organic chemical manufacturing process emission unit, subject to this Subpart shall comply with the requirements of subsection (a), (b), or (c) below of this Section.

- a) Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or

(Board Note: For the purpose of this provision, an emission unit is any part or activity at a source of a type that by itself is subject to control requirements in other Subparts of this Part or 40 CFR 60, incorporated by reference in Section 219.112, e.g., a coating line, a printing line, a process unit, a wastewater system, or other equipment, or is otherwise any part or activity at a source.)

- b) An equivalent alternative control plan which has been approved by the Agency and the USEPA in a federally enforceable permit or as a SIP revision.

- c) Any leaks from components subject to the control requirements of this Subpart shall be subject to the following control measures by March 15, 1995:

- 1) Repair any component from which a leak of VOL can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found, unless the leaking

component cannot be repaired until the next process unit shutdown, in which case the leaking component must be repaired before the unit is restarted.

- 2) For any leak which cannot be readily repaired within one hour after detection, the following records, as set forth in this subsection, shall be kept. These records shall be maintained by the owner or operator for a minimum of two years after the date on which they are made. Copies of the records shall be made available to the Agency or USEPA upon verbal or written request.
  - A) The name and identification of the leaking component;
  - B) The date and time the leak is detected;
  - C) The action taken to repair the leak; and
  - D) The date and time the leak is repaired.

#### SUBPART TT: OTHER EMISSION UNITS

#### Section 219.980 Applicability

- a) The requirements of this Subpart shall apply to a source's VOM emission units, which are not included within any of the categories specified in Subparts B, E, F, H, Q, R, S, T, V, X, Y, Z, AA, BB, PP, QQ, or RR of this Part, or are not exempted from permitting requirements pursuant to 35 Ill. Adm. Code 201.146, if the source is subject to this Subpart. A source is subject to this Subpart if it contains process emission units, not regulated by Subparts B, E, F (excluding Section 219.204(1) of this Part), H (excluding Section 219.405 of this Part), Q, R, S, T, (excluding Section 218.486 of this Part), V, X, Y, Z or BB of this Part, which as a group both:
  - 1) Have maximum theoretical emissions of 91 Mg (100 tons) or more per calendar year of VOM if no air pollution control equipment were used, and
  - 2) Are not limited to less than 91 Mg (100 tons) of VOM emissions per calendar year in the absence of air pollution control equipment, through production or capacity limitations contained in a federally enforceable permit or a SIP revision.
- b) If a source ceases to fulfill the criteria of subsection (a) of this Section, the requirements of this Subpart shall continue to apply to an emission

unit which was ever subject to the control requirements of Section 219.986 of this Part.

- c) No limits under this Subpart shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission unit not complying with Section 219.986 of this Part does not exceed 4.5 Mg (5.0 tons) per calendar year.
- d) For the purposes of this Subpart, an emission unit shall be considered regulated by a Subpart if it is subject to the limits of that Subpart. An emission unit is not considered regulated by a Subpart if it is not subject to the limits of that Subpart, e.g., the emission unit is covered by an exemption in the Subpart or the applicability criteria of the Subpart are not met.
- e) The control requirements in Subpart TT shall not apply to sewage treatment plants; vegetable oil extraction and processing; coke ovens (including by-product recovery); fuel combustion units; bakeries; barge loading facilities; jet engine test cells; production of polystyrene foam insulation board including storage and extrusion of scrap where blowing agent is added to the polystyrene resin at the source, but not including blending and preliminary expansion of resin prior to molding where a blowing agent is incorporated into the polystyrene resin by the producer of the resin; production of polystyrene or polyethylene foam packaging not including blending and preliminary expansion of resin prior to molding where blowing agent is incorporated into the polystyrene resin by the producer of the resin; and not including storage and extrusion of scrap where blowing agent is added to the polystyrene resin at the source; and iron and steel production.

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

#### Section 219.986 Control Requirements

Every owner or operator of an emission unit subject to this Subpart shall comply with the requirements of subsection (a), (b), (c), (d) or (e) ~~below~~ of this Section.

- a) Emission capture and control equipment which achieve an overall reduction in uncontrolled VOM emissions of at least 81 percent from each emission unit, or

(Board Note: For the purpose of this provision, an emission unit is any part or activity at a source of a



type that by itself is subject to control requirements in other Subparts of this Part or 40 CFR 60, incorporated by reference in Section 219.112, e.g., a coating line, a printing line, a process unit, a wastewater system, or other equipment, or is otherwise any part or activity at a source.)

- b) For coating lines, the daily-weighted average VOM content shall not exceed 0.42 kg VOM/l (3.5 lbs VOM/gal) of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied during any day. Owners and operators complying with this Section are not required to comply with Section 219.301 of this Part, or
- c) An equivalent alternative control plan which has been approved by the Agency and the USEPA in a federally enforceable permit or as a SIP revision.
- d) Non-contact process water cooling towers which are subject to the control requirements of this Subpart shall comply with the following control measures no later than March 15, 1995 or upon initial startup:
  - 1) The owner or operator of a non-contact process water cooling tower shall perform the following actions to control emissions of volatile organic material (VOM) from such a tower:
    - A) Inspect and monitor such tower to identify leaks of VOM into the water, as further specified in subsection (d)(3) below of this Section;
    - B) When a leak is identified, initiate and carry out steps to identify the specific leaking component or components as soon as practicable, as further specified in subsection (d)(4) below of this Section;
    - C) When a leaking component is identified which:
      - i) Can be removed from service without disrupting production, remove the component from service;
      - ii) Cannot be removed from service without disrupting production, undertake repair of the component at the next reasonable opportunity to do so including any period when the component is out of service for scheduled maintenance, as further specified in subsection (d)(4) below of this Section;

- D) Maintain records of inspection and monitoring activities, identification of leaks and leaking components, elimination and repair of leaks, and operation of equipment as related to these activities, as further specified in subsection (d)(5) ~~below~~ of this Section.
- 2) A VOM leak shall be considered to exist in a non-contact process water cooling water system if the VOM emissions or VOM content exceed background levels as determined by monitoring conducted in accordance with subsection (d)(3)(A) ~~below~~ of this Section.
- 3) The owner or operator of a non-contact process water cooling tower shall carry out an inspection and monitoring program to identify VOM leaks in the cooling water system.
- A) The owner or operator of a non-contact process water cooling tower shall submit to the Agency a proposed monitoring program, accompanied by technical justification for the program, including justification for the sampling, location(s), parameter(s) selected for measurement, monitoring and inspection frequency, and the criteria used relative to the monitored parameters to determine whether a leak exists as specified in subsection (d)(2) ~~above~~ of this Section.
- B) This inspection and monitoring program for non-contact process water cooling towers shall include, but shall not be limited to:
- i) Monitoring of each such tower with a water flow rate of 25,000 gallons per minute or more at a petroleum refinery at least weekly and monitoring of other towers at least monthly;
- ii) Inspection of each such tower at least weekly if monitoring is not performed at least weekly.
- C) This inspection and monitoring program shall be carried out in accordance with written procedures which the Agency shall specify as a condition in a federally enforceable operating permit. These procedures shall include the VOM background levels for the cooling tower as established by the owner or operator through monitoring; describe the locations at which samples will be taken;

identify the parameter(s) to be measured, the frequency of measurements, and the procedures for monitoring each such tower, that is, taking of samples and other subsequent handling and analyzing of samples; provide the criteria used to determine that a leak exists as specified in subsection (d)(2) ~~above of this Section~~; and describe the records which will be maintained.

- D) A non-contact process water cooling tower is exempt from the requirements of subsections (d)(3)(B) and (d)(3)(C) ~~above of this Section~~, if all equipment, where leaks of VOM into cooling water may occur, is operated at a minimum pressure in the cooling water of at least 35 kPa greater than the maximum pressure in the process fluid.
- 4) The repair of a leak in a non-contact process water cooling tower shall be considered to be completed in an acceptable manner as follows:
- A) Efforts to identify and locate the leaking components are initiated as soon as practicable, but in no event later than three days after detection of the leak in the cooling water tower;
- B) Leaking components shall be repaired or removed from service as soon as possible but no later than 30 days after the leak in the cooling water tower is detected, unless the leaking components cannot be repaired until the next scheduled shutdown for maintenance.
- 5) The owner or operator of a non-contact process water cooling tower shall keep records as set forth below in this subsection. These records shall be retained at a readily accessible location at the source and shall be available for inspection and copying by the Agency for at least 3 years:
- A) Records of inspection and monitoring activity;
- B) Records of each leak identified in such tower, with date, time and nature of observation or measured level of parameter;
- C) Records of activity to identify leaking components, with date initiated, summary of

components inspected with dates, and method of inspection and observations;

- D) Records of activity to remove a leaking component from service or repair a leaking component, with date initiated and completed, description of actions taken and the basis for determining the leak in such tower has been eliminated. If the leaking component is not identified, repaired or eliminated within 30 days of initial identification of a leak in such tower, this report shall include specific reasons why the leak could not be eliminated sooner including all other intervening periods when the process unit was out of service, actions taken to minimize VOM losses prior to elimination of the leak and any actions taken to prevent the recurrence of a leak of this type.
- 6) The owner or operator of a non-contact process water cooling tower shall submit an annual report to the Agency which provides:
- A) The number of leaks identified in each cooling tower;
  - B) A general description of activity to repair or eliminate leaks which were identified;
  - C) Identification of each leak which was not repaired in 30 days from the date of identification of a leak in such a tower, with description of the leaks, explanation why the the leak was not repaired in 30 days;
  - D) Identification of any periods when required inspection and monitoring activities were not carried out.
- e) Any leaks from components subject to the control requirements of this Subpart shall be subject to the following control measures by March 15, 1995:
- 1) Repair any component from which a leak of VOL can be observed. The repair shall be completed as soon as practicable but no later than 15 days after the leak is found, unless the leaking component cannot be repaired until the next process unit shutdown, in which case the leaking component must be repaired before the unit is restarted.

- 2) For any leak which cannot be readily repaired within one hour after detection, the following records, as set forth below in this subsection, shall be kept. These records shall be maintained by the owner or operator for a minimum of two years after the date on which they are made. Copies of the records shall be made available to the Agency or USEPA upon verbal or written request.
- A) The name and identification of the leaking component;
  - B) The date and time the leak is detected;
  - C) The action taken to repair the leak; and
  - D) The date and time the leak is repaired.

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

Section 219.Appendix G TRE Index Measurements for SOCM  
Reactors and Distillation Units

For purposes of Subpart Q, Sections 219.431 through 219.435, the following apply:

- a) The following test methods shall be used to determine compliance with the total resource effectiveness ("TRE") index value:
  - 1) Method 1 or 1A, incorporated by reference at Section 219.112 of this Part, as appropriate, for selection of the sampling site.
    - A) The sampling site for the vent stream molar composition determination and flow rate prescribed in subsections (a)(2) and (a)(3) of this Appendix shall be, except for the situations outlined in subsection (a)(1)(B), after the final recovery device, if a recovery system is present, prior to the inlet of any control device, and prior to any post-reactor or post-distillation unit introduction of halogenated compounds into the vent stream. No traverse site selection method is needed for vents smaller than 10 cm in diameter.
    - B) If any gas stream other than the reactor or distillation unit vent stream is normally conducted through the final recovery device:

- i) The sampling site for vent stream flow rate and molar composition shall be prior to the final recovery device and prior to the point at which any nonreactor or nondistillation unit vent stream or stream from a nonaffected reactor or distillation unit is introduced. Method 18 incorporated by reference at Section 219.112 of this Part, shall be used to measure organic compound concentrations at this site.
  - ii) The efficiency of the final recovery device is determined by measuring the organic compound concentrations using Method 18, incorporated by reference at Section 219.112 of this Part, at the inlet to the final recovery device after the introduction of all vent streams and at the outlet of the final recovery device.
  - iii) The efficiency of the final recovery device determined according to subsection (a)(1)(B)(ii) of this Appendix shall be applied to the organic compound concentrations measured according to subsection (a)(1)(B)(i) of this Appendix to determine the concentrations of organic compounds from the final recovery device attributable to the reactor or distillation unit vent stream. The resulting organic compound concentrations are then used to perform the calculations outlined in subsection (a)(4) of this Appendix.
- 2) The molar composition of the vent stream shall be determined as follows:
- A) Method 18, incorporated by reference at Section 219.112 of this Part, to measure the concentration of organic compounds including those containing halogens;
  - B) ASTM D1946-77, incorporated by reference at Section 219.112 of this Part, to measure the concentration of carbon monoxide and hydrogen; and
  - C) Method 4, incorporated by reference at Section 219.112 of this Part, to measure the content of water vapor.

- 3) The volumetric flow rate shall be determined using Method 2, 2A, 2C, or 2D, incorporated by reference at Section 219.112 of this Part, as appropriate.
- 4) The emission rate of VOM (minus methane and ethane) ( $E_{VOM}$ ) in the vent stream shall be calculated using the following formula:

$$E_{VOM} = K_2 \frac{\sum_{j=1}^n C_j M_j Q_v}{j=1}$$

where:

$E_{VOM}$  = Emission rate of VOM (minus methane and ethane) in the sample, kg/hr.

$K_2$  = Constant,  $2.494 \times 10^{-6}$  (l/ppmv)(g-mole/scm)(kg/g)(min/hr), where standard temperature for (g-mole/scm) is 20°C.

$C_j$  = Concentration of compound j, on a dry basis, in ppmv as measured by Method 18, incorporated by reference at Section 219.112 of this Part, as indicated in Section 219.433(c)(3) of this Part.

$M_j$  = Molecular weight of sample j, g/g-mole.

$Q_v$  = Vent stream flow rate (scm) at a temperature of 20°C.

- 5) The total vent stream concentration (by volume) of compounds containing halogens (ppmv, by compound) shall be summed from the individual concentrations of compounds containing halogens which were measured by Method 18, incorporated by reference at Section 219.112 of this Part.
- 6) The net heating value of the vent stream shall be calculated using the following:

$$H_T = K_1 \frac{\sum_{j=1}^n C_j H_j (1 - B_{ws})}{j=1}$$

where:

$H_T$  = Net heating value of the sample (MJ/scm, where the net enthalpy per mole of vent stream is based on combustion of 25°C and 760 mmHG, but the standard temperature for determining the volume corresponding to one mole is 25°C, as in

the definition of  $Q_v$  (vent stream flow rate).

$K_i$   $\equiv$  Constant,  $1.740 \times 10^{-7}$  (ppmv)<sup>-1</sup> (g-mole/scm), (MJ/KCal), where standard temperature for (g-mole/scm) is 20°C.

$B_{ws}$   $\equiv$  Water vapor content of the vent stream, proportion by volume; except that if the vent stream passes through a final stream jet and is not condensed, it shall be assumed that  $B_{ws} = 0.023$  in order to correct to 2.3 percent moisture.

$C_j$   $\equiv$  Concentration on a dry basis of compound  $j$  in ppmv, as measured for all organic compounds by Method 18, incorporated by reference at Section 219.112 of this Part, and measured for hydrogen and carbon monoxide by using ASTM D1946-77, incorporated by reference at Section 219.112 of this Part.

$H_j$   $\equiv$  Net heat of combustion of compound  $j$ , kCal/g-mole, based on combustion at 25°C and 760 mmHG. The heats of combustion of vent stream components shall be determined using ASTM D2382-83, incorporated by reference at Section 219.112 of this Part, if published values are not available or cannot be calculated.

b) 1) The TRE index value of the vent shall be calculated using the following:

$$\text{TRE} = \frac{1 [a + b (Q_v) + c (H_T) + d (E_{\text{VOM}})]}{E_{\text{VOM}}}$$

where:

$\text{TRE}$   $\equiv$  TRE index value.

$E_{\text{VOM}}$   $\equiv$  Hourly emission rate of VOM (kg/hr) as calculated in subsection (a) (4) of this Appendix.

$Q_v$   $\equiv$  Vent stream flow rate scm/min at a standard temperature of 20°C.



$H_T$  = Vent stream net heating value (MJ/scm), as calculated in subsection (a)(6) of this Appendix.

$E_{VOM}$  = Hourly emission rate of VOM (minus methane and ethane), (kg/hr) as calculated in subsection (a)(4) of this Appendix.

$a, b, c, d$  = Value of coefficients presented below are:

<u>Type of Stream</u>	<u>Control Device Basis</u>	<u>Value of Coefficients</u>			
		<u>a</u>	<u>b</u>	<u>c</u>	<u>d</u>
<u>Nonhalogenated</u>	<u>Flare</u>	2.129	0.183	-0.005	0.359
	<u>Thermal incinerator zero (0) Percent heat Recovery</u>	3.075	0.021	-0.037	0.018
	<u>Thermal incinerator 70 Percent heat Recovery</u>	3.803	0.032	-0.042	0.007
<u>Halogenated</u>	<u>Thermal incinerator and scrubber</u>	5.470	0.181	-0.040	0.004

2) Every owner or operator of a vent stream shall use the applicable coefficients identified for values a, b, c, and d in subsection (b)(1) of this Appendix to calculate the TRE index value based on a flare, a thermal incinerator with zero (0) percent heat recovery, and a thermal incinerator with 70 percent heat recovery, and shall select the lowest TRE index value.

3) Every owner or operator of a reactor or distillation unit with a halogenated vent stream, determined as any stream with a total concentration of halogen atoms contained in organic compounds of 200 ppmv or greater, shall use the applicable coefficients identified for values a, b, c and d in subsection (b)(1) of this Appendix to calculate the TRE index value based on a thermal incinerator and scrubber.

c) Every owner or operator of a source seeking to comply with Section 219.432(b) of this Part shall recalculate the flow rate and VOM concentration for each affected vent stream whenever process changes are made. Examples of process changes include, but are not limited to, changes in production capacity, feedstock type, or catalyst type, or whenever there is

replacement, removal, or addition of recovery equipment. The flow rate and VOM concentration shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

- d) Whenever a process change, as defined in Section 219.435(c) of this Subpart, yields a TRE index value of 1.0 or less, the owner or operator shall notify and submit a report to the Agency according to the requirements specified in Section 219.435(c) of this Subpart, within 180 calendar days after the process change and shall conduct a performance test according to the methods and procedures required by Section 219.433 of this Part.
- e) For the purpose of demonstrating that a process vent stream has a VOM concentration below 500 ppmv, the following shall be used:
- 1) The sampling site shall be selected as specified in Section 219.433(c)(1) of this Part.
  - 2) Method 18 or Method 25A of 40 CFR Part 60, Appendix A, incorporated by reference at Section 219.112 of this Part, shall be used to measure concentration; alternatively, any other method or data that has been validated according to the protocol in Method 301 of 40 CFR Part 63, Appendix A, incorporated by reference at Section 219.112 of this Part, may be used.
  - 3) Where Method 18 is used, the following procedures shall be used to calculate ppmv concentration:
    - i) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time, such as 15 minute intervals during the run.
    - ii) The concentration of VOM shall be calculated using Method 18 according to Section 219.433(c)(4) of this Part.
  - 4) Where Method 25A is used, the following procedures shall be used to calculate ppmv VOM concentration:
    - i) Method 25A shall be used only if a single VOM is greater than 50 percent of total VOM, by volume, in the process vent stream.

- ii) The vent stream composition may be determined by either process knowledge, test data collected using an appropriate Reference Method or a method of data collection validated according to the protocol in Method 301 of 40 CFR Part 63, Appendix A, incorporated by reference at Section 219.112 of this Part. Examples of information that constitute process knowledge include calculations based on material balances, process stoichiometry, or previous test results provided the results are still relevant to the current process vent stream conditions.
  - iii) The VOM used as the calibration gas for Method 25A shall be the single VOM present at greater than 50 percent of the total VOM by volume.
  - iv) The span value for Method 25A shall be 50 ppmv.
  - v) Use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
  - vi) The concentration of VOM shall be corrected to 3 percent oxygen using the procedures and equation in Section 219.433(c)(3) of this Part.
- 5) The owner or operator shall demonstrate that the concentration of VOM, including methane and ethane, measured by Method 25A is below 250 ppmv to qualify for the low concentration exclusion in Section 219.431 of this Part.

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

Section 219.Appendix H Base Line VOM Content Limitations for Subpart F, Section 219.212 Cross-Line Averaging

This Appendix contains limitations for purposes of determining compliance with the requirements in Section 219.212 of this Part. A source must establish that, at very least, each participating coating line used for purposes of cross-line averaging meets the Federal Implementation Plan level of VOM content, as listed

below. The emission limitations for participating coating lines that must not be exceeded are as follows:

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

(Note: The primer surface coat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire primer surface operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 does not apply to the primer surface limitation.)

	<u>kg/l</u>	<u>lb/gal</u>
3) <u>Topcoat</u>	<u>1.81</u>	<u>(15.1)</u>

(Note: The topcoat limitation is in units of kg (lbs) of VOM per l (gal) of coating solids deposited. Compliance with the limitation shall be based on the daily-weighted average from an entire topcoat operation. Compliance shall be demonstrated in accordance with the topcoat protocol referenced in Section 219.105(b) of this Part and the recordkeeping and reporting requirements specified in Section 219.211(f). Testing to demonstrate compliance shall be performed in accordance with the topcoat protocol and a detailed testing proposal approved by the Agency and USEPA specifying the method of demonstrating compliance with the protocol. Section 219.205 of this Part does not apply to the topcoat limitation.)

	<u>kg/l</u>	<u>lb/gal</u>
4) <u>Final repair coat</u>	<u>0.58(4.8)</u>	
b) <u>Can Coating</u>	<u>kg/l</u>	<u>lb/gal</u>
1) <u>Sheet basecoat and overvarnish</u>	<u>0.34</u>	<u>(2.8)</u>

2)	<u>Exterior basecoat and overvarnish</u>	<u>0.34</u>	<u>(2.8)</u>
3)	<u>Interior body spray coat</u>	<u>0.51</u>	<u>(4.2)</u>
4)	<u>Exterior end coat</u>	<u>0.51</u>	<u>(4.2)</u>
5)	<u>Side seam spray coat</u>	<u>0.66</u>	<u>(5.5)</u>
6)	<u>End sealing compound coat</u>	<u>0.44</u>	<u>(3.7)</u>
		<u>kg/l</u>	<u>lb/gal</u>
c)	<u>Paper Coating</u>	<u>0.35</u>	<u>(2.9)</u>

(Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which printing is performed if the paper coating line complies with the emissions limitations in Subpart H: Printing and Publishing, Section 219.401 of this Part.)

		<u>kg/l</u>	<u>lb/gal</u>
d)	<u>Coil Coating</u>	<u>0.31</u>	<u>(2.6)</u>
e)	<u>Fabric Coating</u>	<u>0.35</u>	<u>(2.9)</u>
f)	<u>Vinyl Coating</u>	<u>0.45</u>	<u>(3.8)</u>
g)	<u>Metal Furniture Coating</u>		
	1) <u>Air Dried</u>	<u>0.36</u>	<u>(3.0)</u>
	2) <u>Baked</u>	<u>0.36</u>	<u>(3.0)</u>
h)	<u>Large Appliance Coating</u>		
	1) <u>Air Dried</u>	<u>0.34</u>	<u>(2.8)</u>
	2) <u>Baked</u>	<u>0.34</u>	<u>(2.8)</u>

(Note: The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 l (1 quart) in any one rolling eight-hour period.)

		<u>kg/l</u>	<u>lb/gal</u>
i)	<u>Magnet Wire Coating</u>	<u>0.20</u>	<u>(1.7)</u>
j)	<u>Miscellaneous Metal Parts and Products Coating</u>		
	1) <u>Clear coating</u>	<u>0.52</u>	<u>(4.3)</u>
	2) <u>Extreme performance</u>		

	<u>coating</u>		
	A) <u>Air Dried</u>	<u>0.42</u>	<u>(3.5)</u>
	B) <u>Baked</u>	<u>0.42</u>	<u>(3.5)</u>
3)	<u>Steel pail and drum interior coating</u>	<u>0.52</u>	<u>(4.3)</u>
4)	<u>All other coatings</u>		
	A) <u>Air Dried</u>	<u>0.42</u>	<u>(3.5)</u>
	B) <u>Baked</u>	<u>0.36</u>	<u>(3.0)</u>
k)	<u>Heavy Off-Highway Vehicle Products Coating</u>	<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Extreme performance prime coat</u>	<u>0.42</u>	<u>(3.5)</u>
2)	<u>Extreme performance top-coat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
3)	<u>Final repair coat (air dried)</u>	<u>0.42</u>	<u>(3.5)</u>
4)	<u>All other coatings are subject to the emission limitations for miscellaneous metal parts and products coatings in subsection (j) above.</u>		
1)	<u>Wood Furniture Coating</u>	<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Clear topcoat</u>	<u>0.67</u>	<u>(5.6)</u>
2)	<u>Opaque stain</u>	<u>0.56</u>	<u>(4.7)</u>
3)	<u>Pigmented coat</u>	<u>0.60</u>	<u>(5.0)</u>
4)	<u>Repair coat</u>	<u>0.67</u>	<u>(5.6)</u>
5)	<u>Sealer</u>	<u>0.67</u>	<u>(5.6)</u>
6)	<u>Semi-transparent stain</u>	<u>0.79</u>	<u>(6.6)</u>
7)	<u>Wash coat</u>	<u>0.73</u>	<u>(6.1)</u>

(Note: An owner or operator of a wood furniture coating operation subject to this Section shall apply all coatings, with the exception of no more than 37.8 l (10 gal) of coating per day used for touch-up and repair operations, using one or more of the following application systems: airless spray application system, air-assisted airless

spray application system, electrostatic spray application system, electrostatic bell or disc spray application system, heated airless spray application system, roller coating, brush or wipe coating application system, dip coating application system or high volume low pressure (HVLP) application system.)

m) Plastic Parts Coating: Automotive/Transportation

		<u>kg/l</u>	<u>lb/gal</u>
<u>1)</u>	<u>Interiors</u>		
	<u>A) Baked</u>		
	<u>i) Color coat</u>	<u>0.49*</u>	<u>(4.1)*</u>
	<u>ii) Primer</u>	<u>0.46*</u>	<u>(3.8)*</u>
	<u>B) Air Dried</u>		
	<u>i) Color coat</u>	<u>0.38*</u>	<u>(3.2)*</u>
	<u>ii) Primer</u>	<u>0.42*</u>	<u>(3.5)*</u>
<u>2)</u>	<u>Exteriors (flexible and non-flexible)</u>		
	<u>A) Baked</u>		
	<u>i) Primer</u>	<u>0.60*</u>	<u>(5.0)*</u>
	<u>ii) Primer non-flexible</u>	<u>0.54*</u>	<u>(4.5)*</u>
	<u>iii) Clear coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
	<u>iv) Color coat</u>	<u>0.55*</u>	<u>(4.6)*</u>
	<u>B) Air Dried</u>		
	<u>i) Primer</u>	<u>0.66*</u>	<u>(5.5)*</u>
	<u>ii) Clear coat</u>	<u>0.54*</u>	<u>(4.5)*</u>
	<u>iii) Color coat (red &amp; black)</u>	<u>0.67*</u>	<u>(5.6)*</u>
	<u>iv) Color coat (others)</u>	<u>0.61*</u>	<u>(5.1)*</u>
<u>3)</u>	<u>Specialty</u>		
	<u>A) Vacuum metallizing</u>	<u>0.66*</u>	<u>(5.5)*</u>

basecoats, texture  
basecoats

B)	<u>Black coatings, reflective argent coatings, air bag cover coatings, and soft coatings</u>	<u>0.71*</u>	<u>(5.9)*</u>
C)	<u>Gloss reducers, vacuum metallizing topcoats, and texture topcoats</u>	<u>0.77*</u>	<u>(6.4)*</u>
D)	<u>Stencil coatings, adhesion primers, ink pad coatings, electrostatic prep coatings, and resist coatings</u>	<u>0.82*</u>	<u>(6.8)*</u>
E)	<u>Head lamp lens coatings</u>	<u>0.89*</u>	<u>(7.4)*</u>

n) Plastic Parts Coating: Business Machine

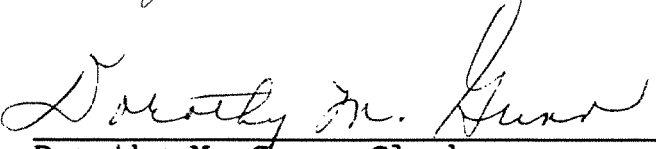
		<u>kg/l</u>	<u>lb/gal</u>
1)	<u>Primer</u>	<u>0.14*</u>	<u>(1.2)*</u>
2)	<u>Color coat (non- texture coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
3)	<u>Color coat (texture coat)</u>	<u>0.28*</u>	<u>(2.3)*</u>
4)	<u>Electromagnetic interference/radio frequency interference (EMI/RFI) shielding coatings</u>	<u>0.48*</u>	<u>(4.0)*</u>
5)	<u>Specialty Coatings</u>		
A)	<u>Soft coat</u>	<u>0.52*</u>	<u>(4.3)*</u>
B)	<u>Plating resist</u>	<u>0.71*</u>	<u>(5.9)*</u>
C)	<u>Plating sensitizer</u>	<u>0.85*</u>	<u>(7.1)*</u>

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

IT IS SO ORDERED.



I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 15<sup>th</sup> day of September, 1994, by a vote of 6-0.

  
\_\_\_\_\_  
Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board