ILLINOIS POLLUTION CONTROL BOARD
July 12, 1979

IN THE MATTER OF:)
) R78-3,-4
EMISSIONS OF VOLATILE ORGANIC MATERIAL)

ORDER OF THE BOARD (by Mr. Dumelle):

The Board hereby adopts the following amendments to the Air Pollution Control Regulations.

1) The references to "An Act Concerning Administrative Rules" in Rules 103(a)(2), 103(b)(3), 103(c), 103(d)(1), 103(e) and 104(b)(3) are deleted.

2) Rule 103(d)(2) is amended to read as follows:

Before adopting new criteria or making substantive changes to any criteria adopted by the Agency, the Agency shall:

(A) publish a summary of the proposed changes in the Environmental Register or a comparable publication at the Agency's expense; and

(B) provide a copy of the full text of the proposed changes to any person who in writing so requests; and

(C) defer adoption of the changes for 45 days from the date of publication to allow submission and consideration of written comments on the proposed changes.

3) Rule 103(i) is amended to read as follows:

Exemptions. No Permit is required for the following classes of equipment:

(1) air contaminant detectors or recorders, combustion controllers, or combustion shutoffs;

(2) air conditioning or ventilating equipment not designed to remove air contaminants generated or released from associated equipment;

(3) fuel burning emission sources for indirect heating

systems and for heating and reheating furnace systems used exclusively for residential or commercial establishments using gas and/or fuel oil exclusively with a total capacity of less than 50 million btu per hour input;

(4) fuel burning emission sources other than those listed in (3) above for indirect heating systems with a total capcity of less than one million btu per hour input;

(5) mobile internal combustion and jet engines, marine installation, and locomotives;

(6) laboratory equipment used exclusively for chemical or physical analysis;

(7) painting operations using not in excess of 5,000 gallons of paint (including thinner) per year;

(8) any emission source acquired exclusively for domestic use, except that a Permit shall be required for any incinerator and for any burning emission source using solid fuel with a total capacity of 50 million btu per hour input or more;

(9) stationary internal combustion engines of less than 1500 horsepower;

(10) stacks or vents used to prevent the escape of sewer gases through plumbing traps;

(11) safety devices designed to protect life and limb, provided that safety devices associated with an emission source shall be included within the Permit for such emission source;

(12) storage tanks for liquids for retail dispensing except for storage tanks located at gasoline dispensing facilities that are subject to the requirements of Rule 205(p).

(13) all printing operations using less than 750 gallons of organic solvents per year;

(14) storage tanks of organic liquids with a capacity of less than 5,000 gallons except for storage tanks located at gasoline dispensing facilities that are subject to the requirements of Rule 205(p).

(15) flanged and threaded pipe connections, vessel manways and process valves capable of discharging specified air contaminants to the atmosphere; and

(16) sampling connections used exclusively to withdraw materials for laboratory testing and analyses.

(17) all storage tanks of Illinois crude oil with capacity of less than 40,000 gallons located on oil field sites;

(18) all organic material - water single or multiple compartment effluent water separator facilities for Illinois crude oil of vapor pressure of less than 5 pounds per square inch absolute (psia).

(19) Grain-handling operations, exclusive of grain-drying operations, with an annual grain through-put not exceeding 300,000 bushels.

(20) Grain-drying operations with a total grain-drying capacity not exceeding 750 bushels per hour for 5% moisture extraction at manufacturer's rated capacity, using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers.

(21) Portable Grain-handling equipment and one-turn storage space.

(22) Cold cleaning degreasers.

4) Rule 103(1) is deleted.

5) Rule 104 is amended to read as follows:

Compliance Programs and Project Completion Schedules.

(a) Prohibition. No person shall cause or allow the operation of an emission source which is not in compliance with the standards or limitations set forth in Part 2 of this Chapter, except for Rule 205(k)-(q), (after the date by which such emission source is required to have an Operating Permit pursuant to Rule 103) without a Compliance Program and a Project Completion Schedule approved by the Agency.

(1) No person shall cause or allow the operation of an emission source which is not in compliance with the requirements of Rule 205(k)-(p) after the date by which a source is required to have a Compliance Program under Rule

104(g) without a Compliance Program approved by the Agency.

(2) Unless the source will achieve final compliance by July 1, 1980 or under a schedule set forth in Rule 205(m), no person shall cause or allow the operation of an emission source which is not in compliance with the requirements of Rule 205(k)-(p) after the date by which a source is required to have a Project Completion Schedule under Rule 104(g) without a Project Completion Schedule approved by the Agency. Cold cleaning degreasers and sources subject to Rule 205(q) are not required to submit or obtain an Agency approved Compliance Plan or Project Completion Schedule. Any Compliance Plan or Project Completion Schedule, where applicable, shall be a binding condition of the operating permit for the source.

(b) Contents of Compliance Programs and Project Completion Schedules.

(1) A Compliance Program shall contain, as a minimum, the following data and information: the nature and/or type of the proposed air pollution control equipment or proposed air pollution control technique which has been chosen to achieve compliance; the cost, availability and technical reasonableness of the proposed air pollution control equipment or proposed air pollution control technique, including detailed cost analyses and copies of engineering reports or studies sufficient to prove to the Agency that the compliance program will result in compliance with applicable standards and limitations of Part 2 of this Chapter. For sources subject to Rule 205(n), an approvable Compliance Plan shall include: (1) A complete description of each coating line which is subject to an emission limitation in Rule 205(n); (2) Quantification of the allowable emissions from the coating plant determined under Rule 205(n)(4) where applicable; and (3) A description of the procedures and methods used to determine the emissions of volatile organic material including a method of inventory, record keeping, and emission calculation or measurement which will be used to demonstrate compliance with the allowable plantwide emission limitation.

(2) A Project Completion Schedule shall contain, as a minimum, the following data and informa-

tion: a final compliance date, which date shall be no later than the applicable date prescribed in Part 2 of this Chapter; and reasonable interim dates by which various increments of the proposed compliance program shall be completed, such as dates when contracts will be awarded, dates for equipment delivery, and dates for construction of preliminary structural work.

(3) The Agency may adopt procedures which require data and information in addition to and in amplification of the matters specified in paragraph (b)(2) of this Rule 104, and which set forth the format by which all data and information shall be submitted.

(c) Standards for Approval. No Compliance Program or Project Completion Schedule shall be approved unless the applicant submits proof to the Agency that:

(1) the Compliance Program will result in timely compliance with applicable standards and limitations of Part 2 of this Chapter; and

(2) the owner or operator has provided adequate proof that it is committed to the Compliance Program or Project Completion Schedule, including, in the case of a corporation, certification by a duly authorized officer of such corporation that such corporation approves each and every provision of such program and of such schedule.

(d) Revisions. The owner or operator of an emission source or air pollution control equipment subject to an approved Compliance Program and Project Completion Schedule may request a revision of such Program or Schedule at any time. In addition, the Agency may require a revision upon any change in the Act or this Chapter. The Agency shall not approve any revision which contains a final compliance date later than the applicable date prescribed in Part 2 of this Chapter.

(e) Effects of Approval. The approval of a Compliance Program and Project Completion Schedule shall be a condition precedent to the issuance and effectiveness of a Permit pursuant to Rule 103. An approved Compliance Program and Project Completion Schedule, and full compliance therewith, and a current Operating Permit, shall be a prima facie defense to any enforcement action alleging a violation of

the standards or limitation set forth in Part 2 of this Chapter with respect to any air contaminant included in such Program and Schedule during the period of the program. Failure to adhere to an approved compliance schedule shall constitute a violation of this Part for which appropriate sanctions may be sought in accordance with the Act.

(f) Records and Reports. Any person subject to this Rule shall maintain such records and make such reports as may be required in procedures adopted by the Agency pursuant to Rule 107.

(g) Submission and Approval Dates

A source subject to the requirements of Rule 205(k)-(p) shall have a Compliance Plan and a Project Completion Schedule, where applicable, approved by the Agency by the following dates. A Compliance Plan and a Project Completion Schedule, where applicable, shall be submitted at least 90 days before the following dates.

(1) By February 1, 1980. Gasoline dispensing facilities subject to Rule 205(p) and degreasers subject to Rule 205(k) located in Cook, DuPage, Lake, Kane, McHenry and Will counties.

(2) By March 1, 1980. Petroleum refineries subject to Rule 205(1). Gasoline dispensing facilities subject to Rule 205(p) in Boone, Madison, St. Clair, Peoria, Tazewell, Rock Island and Winnebago counties.

(3) By April 1, 1980. Degreasers subject to Rule 205(k) located in counties other than Cook, DuPage, Lake, Kane, McHenry or Will. Bulk gasoline plants, bulk gasoline terminals and petroleum liquid storage tanks subject to Rule 205(o) located in Cook, DuPage, Lake, Kane, McHenry and Will counties.

(4) By May 1, 1980. Coating lines subject to Rule 205(n). Bulk gasoline plants, bulk gasoline terminals and petroleum liquid storage tanks subject to Rule 205(o) which are located in counties other than Cook, Lake, DuPage, Kane, McHenry or Will.

6) The following Definitions in Rule 201 are added or changed to read as follows:

Accumulator: The reservoir of a condensing unit receiving the condensate from a surface condenser.

Afterburner: A device in which materials in gaseous effluents are combusted.

Asphalt: The dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) of which the main constitutents are bitumens which occur naturally or as a residue of petroleum refining.

Asphalt Prime Coat: A low-viscosity liquid asphalt applied to an absorbent surface as the first of more than one asphalt coat.

Automobile: Any first division motor vehicle as that term is defined in the Illinois Vehicle Code (Ill. Rev. Stat. Ch. 95 1/2, §§1-100 et seq.)

Automobile or Light-Duty Truck Manufacturing Plant: A facility where parts are manufactured or finished for eventual inclusion into a finished automobile or light-duty truck ready for sale to vehicle dealers, but not including customizers, body shops and other repainters.

Batch Loading: The process of loading a number of individual parts at the same time for degreasing.

Bulk Gasoline Plant: Any gasoline storage and distribution facility that receives gasoline from bulk gasoline terminals by delivery vessels and distributes gasoline to gasoline dispensing facilities.

Bulk Gasoline Terminal: Any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, and distributes gasoline to bulk gasoline plants or gasoline dispensing facilities.

Can Coating: The application of a coating material to a single walled container that is manufactured from metal sheets thinner than 29 gauge (.0141 in).

Coating Applicator: Equipment used to apply a surface coating.

Coating Line: An operation where a surface coating is applied to a material and subsequently the coating is dried and/or cured.

Coating Plant: Any building, structure or installation that contains a coating line and which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person (or by persons under common control).

Coil Coating: The application of a coating material to any flat metal sheet or strip that comes in rolls or coils.

Cold Cleaning: The process of cleaning and removing soils from surfaces by spraying, brushing, flushing or immersion while maintaining the organic solvent below its boiling point. Wipe cleaning is not included in this definition.

Condensate: Hydrocarbon liquid separated from its associated gases which condenses due to changes in the temperature or pressure and remains liquid at standard conditions.

Conveyorized Degreasing: The continuous process of cleaning and removing soils from surfaces utilizing either cold or vaporized solvents.

Crude Oil: A naturally occurring mixture which consists of hydrocarbons and sulfur, nitrogen or oxygen derivatives of hydrocarbons and which is a liquid at standard conditions.

Crude Oil Gathering: The transportation of crude oil or condensate after custody transfer between a production facility and a reception point.

Custody Transfer: The transfer of produced petroleum and/or condensate after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

Cutback Asphalt: Any asphalt which has been liquified by blending with petroleum solvents other than residual fuel oil and has not been emulsified with water.

Degreaser: Any equipment or system used in solvent cleaning.

Delivery Vessel: Any tank truck or trailer equipped with a storage tank that is used for the transport of gasoline to a stationary storage tank at a gasoline dispensing facility, bulk gasoline plant or bulk gasoline terminal.

End Sealing Compound Coat: A compound applied to can ends which functions as a gasket when the end is assembled on the can.

Exterior Base Coat: An initial coating applied to the exterior of a can after the can body has been formed.

Exterior End Coat: A coating applied by rollers or spraying to the exterior end of a can.

Fabric Coating: The coating of a textile substrate.

Final Repair Coat: The repainting of any coating which is damaged during vehicle assembly.

Firebox: The chamber or compartment of a boiler or furnace in which materials are burned, but not the combustion chamber or afterburner of an incinerator.

Freeboard Height: For open top vapor degreasers, the distance from the top of the vapor zone to the top of the degreaser tank. For cold cleaning degreasers, the distance from the solvent to the top of the degreaser tank.

Fuel Gas System: A system for collection of refinery fuel gas including, but not limited to, piping for collecting tail gas from various process units, mixing drums and controls, and distribution piping.

Gasoline: Any petroleum distillate having a Reid vapor pressure of 4 pounds or greater.

Gasoline Dispensing Facility: Any site where gasoline is transferred from a stationary storage tank to a motor vehicle gasoline tank used to provide fuel to the engine of that motor vehicle.

Hot Well: The reservoir of a condensing unit receiving the condensate from a barometric condenser.

Interior Body Spray Coat: A coating applied by spray to the interior of a can after the can body has been formed.

Large Appliance Coating: The application of a coating material to the component metal parts (including but not limited to doors, cases, lids, panels, and interior support parts) of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners and other similar products.

Light-duty Truck: Any second division motor vehicle, as that term is defined in the Illinois Vehicle Code, (Ill. Rev. Stat. Ch. 95 1/2, §§1-100 et seq.) weighing less than 3864 kilograms (8500 pounds) gross.

Magnet Wire Coating: The application of a coating of electrically insulating varnish or enamel to conducting wire to be used in electrical machinery.

Metal Furniture Coating: The application of a coating material to any furniture piece made of metal or any metal part which is or will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece including, but not limited to, tables, chairs, wastebaskets, beds, desks, lockers, benches, shelving, file cabinets, lamps and room dividers. This definition shall not apply to any coating line coating metal parts or products that is identified under the Standard Industrial Classification Code for Major Groups 33, 34, 35, 36, 37, 38, 39, 40, or 41.

Operator of Gasoline Dispensing Facility: Any person who is the lessee of or operates, controls or supervises a gasoline dispensing facility.

Overvarnish: A coating applied directly over ink or printing.

Owner of Gasoline Dispensing Facility: Any person who has legal or equitable title to a stationary storage tank at a gasoline dispensing facility.

Paper Coating: The application of a coating material to paper or pressure sensitive tapes, regardless of substrate, including web coatings on plastic fibers and decorative coatings on metal foil.

Petroleum Liquid: Crude oil, condensate or any finished or intermediate product manufactured at a petroleum refinery, but not including Number 2 through Number 6 fuel oils as specified in ASTM D396-69, gas turbine fuel oils Numbers 2-GT through 4-GT as specified in ASTM D2880-71, or diesel fuel oils Numbers 2-D and 4-D as specified in ASTM D975-68.

Petroleum Refinery: Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

Prime Coat: The first film of coating material applied in a multiple coat operation.

Prime Surfacer Coat: A film of coating material that touches up areas on the surface not adequately covered by the prime coat before application of the top coat.

Refinery Fuel Gas: Any gas which is generated by a petroleum refinery process unit and which is combusted at the refinery, including any gaseous mixture of natural gas and fuel gas.

Roadway: Any street, highway, road, alley, sidewalk, parking lot, airport, rail bed or terminal, bikeway, pedestrian mall or other structure used for transportation purposes.

Sheet Basecoat: A coating applied to metal when the metal is in sheet form to serve as either the exterior or interior of a can for either two-piece or three-piece cans.

Side-Seam Spray Coat: A coating applied to the seam of a three-piece can.

Solvent Cleaning: The process of cleaning soils from surfaces by cold cleaning, open top vapor degreasing or conveyorized degreasing.

Stationary Storage Tank: Any container of liquid or gas which is designed and constructed to remain at one site.

Top Coat: A film of coating material applied in a multiple coat operation other than the prime coat, final repair coat or prime surfacer coat.

Transfer Efficiency: The weight or volume of coating adhering to the coated material divided by the weight or volume of coating delivered to the coating applicator and multiplied by 100 to equal a percentage.

True Vapor Pressure: The equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks" (1962).

Turnaround: The procedure of shutting down an operating refinery unit, emptying gaseous and liquid contents to do inspection, maintenance and repair work, and putting the unit back into production.

Vacuum Producing System: Any reciprocating, rotary, or centrifugal blower or compressor, or any jet ejector or device that creates suction from a pressure below atmospheric and discharges against a greater pressure.

Vapor Balance System: Any combination of pipes or hoses which creates a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

Vapor Control System: Any system that prevents release to the atmosphere of organic material in the vapors displaced from a tank during the transfer of gasoline.

Vinyl Coating: The application of a topcoat or printing to vinyl coated fabric or vinyl sheets.

Volatile Organic Material: Any organic material which has a vapor pressure of 2.5 pounds per square inch absolute (psia) (130 millimeters of mercury) or greater at 70°F. For purposes of Rule 205(1), volatile organic material means any organic material which has a vapor pressure of 1.5 pounds per square inch absolute (psia) (78 millimeters of mercury) or greater at 70°F. For purposes of Rule 205(k) and (n), volatile organic material means any organic material which has a vapor pressure greater than .0019 pounds per square inch absolute (psia) (0.1 millimeters of mercury) at 70°F. For purposes of this definition, the following are not volatile organic material:

1. Methane
2. Ethane

Volatile Petroleum Liquid: Any petroleum liquid with a true vapor pressure that is greater than 1.5 psia (78 millimeters of mercury) at standard conditions.

Wastewater (Oil/Water) Separator: Any device or piece of equipment which utilizes the difference in density between oil and water to remove oil and associated chemicals from water, or any device, such as a flocculation tank or a clarifier, which removes petroleum derived compounds from waste water.

7) Rule 205(j) is amended to read as follows:

Compliance Dates

Every owner or operator of an emission source shall comply with the standards and limitations of Rule 205 in accordance with the dates shown in the following table:

Rule	Type of Source	Final Compliance Date
Rule 205(a) through (i)	New Emission Sources	April 14, 1972
Rule 205(a) through (i)	Existing Emission Sources	December 31, 1973
Rule 205(k)	All Emission Sources	July 1, 1980
Rule 205(l)	All Emission Sources	July 1, 1980

Rule 205(n)	All Emission Sources	December 31, 1982*
Rule 205(o)	All Emission Sources	July 1, 1981
Rule 205(p)	All Emission Sources	See Rule 205(m)
Rule 205(q)	All Emission Sources	December 31, 1980

* Except for automobile and light duty truck manufacturing plants achieving final compliance under a footnote to Rule 205(n)(1).

8) New Rules 205(k), (l), (m), (n), (o), (p), (q), and (r) are added which read as follows:

(k) Solvent Cleaning

(1) The requirements of Rules 205(k)(2) and (3) shall not apply:

(A) to sources whose emissions of volatile organic material do not exceed 6.8 kilograms (15 pounds) in any one day, nor 1.4 kilograms (3 pounds) in any one hour; or

(B) to sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance, provided that:

(i) the operation of the sources is not an integral part of the production process;

(ii) the emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and,

(iii) the exemption is approved in writing by the Agency.

(2) *Operating Procedures*

(A) Cold Cleaning

No person shall operate a cold cleaning degreaser unless:

(i) waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;

(ii) the cover of the degreaser is closed when parts are not being handled; and

(iii) parts are drained until dripping ceases.

(B) Open Top Vapor Degreasing

No person shall operate an open top vapor degreaser unless:

(i) the cover of the degreaser is closed when workloads are not being processed through the degreaser;

(ii) Solvent carryout emissions are minimized by:

(a) racking parts to allow complete drainage;

(b) moving parts in and out of the degreaser at less than 3.3 meters per minute (11 feet per minute);

(c) holding the parts in the vapor zone until condensation ceases;

(d) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,

(e) allowing parts to dry within the degreaser until visually dry;

(iii) porous or absorbent materials, such as cloth, leather, wood, or rope are not degreased;

(iv) less than half of the degreaser's open top area is occupied with a workload;

(v) the degreaser is not loaded to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone;

(vi) spraying is done below the vapor level only;

(vii) solvent leaks are repaired immediately;

(viii) waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;

(ix) water is not visually detectable in solvent exiting from the water separator; and

(x) exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. §§651 et seq.)

(C) Conveyorized Degreasing. No person shall operate a conveyorized degreaser unless:

(i) exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of area of loading and unloading opening is not used, unless necessary to meet the requirements of the Occupational Safety and Health Act (29 U.S.C. §§651 et seq.)

(ii) solvent carryout emissions are minimized by:

(a) racking parts for best drainage; and

(b) maintaining the vertical conveyor speed at less than

3.3 meters per minute (11 feet per minute);

(iii) waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;

(iv) solvent leaks are repaired immediately;

(v) water is not visually detectable in solvent exiting from the water separator; and

(vi) downtime covers are placed over entrances and exits of conveyorized degreasers immediately after the conveyors and exhausts are shut down and not removed until just before start-up.

(3) Equipment Requirements

(A) Cold Cleaning. No person shall operate a cold cleaning degreaser unless:

(i) the degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counterweights, or a powered system if

(a) the solvent vapor pressure is greater than 2 kilopascals (15 millimeters of mercury or 0.3 pounds per square inch) measured at 38°C (100°F);

(b) the solvent is agitated; or

(c) the solvent is heated above ambient room temperature;

(ii) the degreaser is equipped with a facility for draining cleaned parts. The drainage facility shall be constructed so that parts are enclosed under the cover while draining unless

(a) the solvent vapor pressure is less than 4.3 kilopascals (32 millimeters of mercury or .6 pounds per square inch) measured at 38°C (100°F); or

(b) an internal drainage facility cannot be fitted into the cleaning system, in which case the drainage facility may be external;

(iii) the degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kilopascals (32 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F) or if the solvent is heated above 50°C (120°F) or its boiling point:

(a) a freeboard height of 7/10 of the inside width of the tank or 36 inches, whichever is less; or

(b) any other equipment or system of equivalent emission control as approved by the Agency. Such a system may include a water cover, refrigerated chiller, or carbon adsorber;

(iv) a permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and

(v) if a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized, or shower spray.

(B) Open Top Vapor Degreasing. No person shall operate an open top vapor degreaser unless:

(i) the degreaser is equipped with a cover designed to open and close easily without disturbing the vapor zone;

(ii) the degreaser is equipped with the following switches:

(a) a device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level; and

(b) a device which shuts off the spray pump if the vapor level drops more than 10 centimeters (4 inches) below the bottom condenser coil; and

(c) a device which shuts off the sump heat source when the vapor level exceeds the design level;

(iii) a permanent conspicuous label summarizing the operating procedure is affixed to the degreaser;

(iv) the degreaser is equipped with one of the following devices:

(a) a freeboard height of 3/4 the inside width of the degreaser tank or 36 inches, whichever is less, and if the degreaser opening is greater than 1 m^2 (10.8 $ft.^2$), a powered or mechanically assisted cover; or

(b) any other equipment or system of equivalent emission control as approved by the Agency. Such equipment or system may include a refrigerated chiller, an enclosed design, or a carbon adsorption system.

(C) Conveyorized Degreasing. No person shall operate a conveyorized degreaser unless:

(i) the degreaser is equipped with a drying tunnel, rotating (tumbling) basket or other equipment sufficient to prevent cleaned parts from carrying out solvent liquid or vapor;

(ii) the degreaser is equipped with the following switches:

(a) a device which shuts off the sump heat source if the amount of condenser coolant is not sufficient to maintain the designed vapor level;

(b) a device which shuts off the spray pump or the conveyor if the vapor level drops more than 10 centimeters (4 inches) below the bottom condenser coil; and

(c) a device which shuts off the sump heat source when the vapor level exceeds the design level;

(iii) the degreaser is equipped with openings for entrances and exits that silhouette workloads so that the average clearance between the parts and the edge of the degreaser opening is less than 10 centimeters (4 inches) or less than 10 percent of the width of the opening;

(iv) the degreaser is equipped with downtime covers for closing off entrances and exits when the degreaser is shut down; and

(v) the degreaser is equipped with one of the following control devices, if the air/vapor interface is larger than 2.0 m^2 (21.6 square feet):

(a) a carbon adsorption system with ventilation greater than or equal to 15 m^3/min. per m^2 (50 cfm/$ft.^2$) of air/vapor area (when downtime covers are open, and exhausting less than 25 ppm of solvent by volume averaged over a complete adsorption cycle; or

(b) any other equipment or system of equivalent emission control as approved by the Agency. Such equipment or system may include a refrigerated chiller.

(1) Petroleum Refineries

(1) Vacuum Producing Systems

No owner or operator of a petroleum refinery shall cause or allow the operation of any vacuum producing system unless the condensers, hot wells, and accumulators of any such system are equipped with vapor loss control equipment including, but not limited to, piping, valves, flame arrestors and hot well covers to vent any volatile organic material to a heater, firebox, flare, refinery fuel gas system, or other equipment or system of equivalent emission control as approved by the Agency. This rule shall not apply to vacuum producing systems on lube units.

(2) Wastewater (Oil/Water) Separator

No owner or operator of a petroleum refinery shall operate any wastewater (oil/water) separator at a petroleum refinery unless the separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material emitted to the atmosphere. If no odor nuisance exists, the limitation of this Rule 205(1)(2) shall only apply to volatile organic material.

(3) Process Unit Turnarounds

(A) No owner or operator of a petroleum refinery shall cause or allow a refinery process unit turnaround except in compliance with an operating procedure as approved by the Agency.

(B) Unless a procedure is already on file with the Agency as part of an approved operating permit no later than November 1, 1979, the owner or operator of a petroleum refinery shall submit to the Agency for approval a detailed procedure for reducing emissions of volatile organic material during refinery process unit turnarounds. The Agency shall not approve the procedure unless it provides for:

(i) depressurization of the refinery process unit or vessel to a flare, refinery fuel gas system or other equipment or system of equivalent

emission control, as approved by the Agency, until the internal pressure from the vessel or unit is less than 5.0 pounds per square inch gauge before allowing the vessel to be vented to the atmosphere;

(ii) recordkeeping of the following items:

(a) each date that a refinery unit or vessel is shut down; and

(b) the total estimated quantity of volatile organic material emitted to the atmosphere and the duration of the emission in hours.

(m) Compliance Schedules

The requirements of this section shall not apply to any source for which a Project Completion Schedule has been submitted to and approved by the Agency under Rule 104. The owner of any emission source subject to the requirements of this section shall certify to the Agency by January 15, of each year beginning January 15, 1980, whether increments of progress required to be met in the previous year have been met.

(1) Coating Lines

The owner or operator of coating lines subject to the requirements of Rule 205(n) shall take the following actions:

(A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by January 1, 1980.

(B) For sources that, under the approved Compliance Plan, will comply with Rule 205(n) by use of low solvent coating technology the following increments of progress shall be met:

(i) Submit to the Agency by July 1, 1980 and every six months thereafter a report describing in detail the progress in the previous six months in the development, application testing, product quality, customer

acceptance and FDA or other government agency approval of the low solvent coating technology;

(ii) Initiate process modifications to allow use of low solvent coatings by April 1, 1982;

(iii) Complete process modifications to allow use of low solvent coatings by October 1, 1982;

(C) For sources that, under the approved Compliance Plan, will comply with Rule 205(n) by installing emission control equipment the following increments of progress shall be met:

(i) Award contracts for the emission control equipment or issue orders for the purchase of component parts by July 1, 1980;

(ii) Initiate on site contruction or installation of the emission control equipment by July 1, 1982;

(iii) Complete on-site construction or installation of the emission control equipment by October 1, 1982.

(2) Bulk Gasoline Plants, Bulk Gasoline Terminals, Petroleum Liquid Storage Tanks

The owner of an emission source subject to the requirements of Rule 205(o) shall take the following actions:

(A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by the date specified in Rule 104(g).

(B) Award contracts for emission control systems or issue orders for the purchase of component parts by July 1, 1980.

(C) Initiate on site construction or installation of the emission control system by January 1, 1981.

(D) Complete on site construction or installation of the emission control system and achieve final compliance by July 1, 1981.

(3) Gasoline Dispensing Facilities

Owners of gasoline dispensing facilities subject to the requirements of Rule 205(p) shall take the following actions:

(A) Submit to the Agency a Compliance Program that meets the requirements of Rule 104(b)(1) by the date specified in Rule 104(g).

(B) Achieve final compliance for 33 percent of all gasoline dispensing facilities owned by the owner by July 1, 1980.

(C) Achieve final compliance for 66 percent of all gasoline dispensing facilities owned by the owner by July 1, 1981.

(D) Achieve final compliance for 100 percent of all gasoline dispensing facilities owned by the owner by July 1, 1982.

(n) Surface Coating

(1) No owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water, delivered to the coating applicator:

	kg/1(lb/gal)
(A) Automobile or Light Duty Truck Manufacturing Plants	
(i) in Cook County	
Prime Coat	0.14 (1.2)[1]
Prime Surfacer Coat	0.34 (2.8)[2]
Top Coat	0.34 (2.8)[3]
Final Repair Coat	0.58 (4.8)
(ii) In Boone County	
Prime Coat	0.14 (1.2)
Prime Surfacer coat	0.34 (2.8)[4]
Top Coat	0.34 (2.8)
Final Repair Coat	0.58 (4.8)
(iii) in the remaining counties	
Prime Coat	0.14 (1.2)
Prime Surfacer Coat	0.34 (2.8)
Top Coat	0.34 (2.8)
Final Repair Coat	0.58 (4.8)

(B)	Can Coating	
(i)	Sheet basecoat and overvarnish	0.34 (2.8)
(ii)	Exterior basecoat and overvarnish	0.34 (2.8)
(iii)	Interior body spray coat	0.51 (4.2)
(iv)	Exterior end coat	0.51 (4.2)
(v)	Side seam spray coat	0.66 (5.5)
(vi)	End sealing compound coat	0.44 (3.7)
(C)	Paper Coating	0.35 (2.9)[5]
(D)	Coil Coating	0.31 (2.6)
(E)	Fabric Coating	0.35 (2.9)
(F)	Vinyl Coating	0.45 (3.8)
(G)	Metal Furniture Coating	0.36 (3.0)
(H)	Large Appliance Coating	0.34 (2.8)[6]
(I)	Magnet Wire Coating	0.20 (1.7)

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[1] The limitation shall not apply if by December 31, 1982 a limitation of 0.38 kg/l (3.2 lb/gal) is achieved and the prime surfacer coat is applied with a transfer efficiency of not less than 55 percent.

[2] The limitation shall not apply if by December 31, 1985 a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 65 percent.

[3] The limitation shall not apply until December 31, 1985.

[4] The limitation shall not apply if by December 31, 1984 a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 55 percent and by December 31, 1986, the top coat is applied with a transfer efficiency of not less than 65 percent.

[5] The limitation shall not apply to equipment used for both printing and paper coating.

[6] 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 liters (1 quart) in any one eight-hour period.

(2) Alternative Compliance

Owners or operators of coating lines subject to Rule 205(n)(1) may comply with this sub-paragraph (n)(2), rather than with Rule 205 (n)(1). Emissions of volatile organic material from sources subject to Rule 205(n)(1), are allowable, notwithstanding the limitations in Rule 205(n)(1), if such emissions are controlled by one of the following methods:

(A) an afterburner system, provided that 75 percent of the emissions from the coating line and 90 percent of the nonmethane volatile organic material (measured as total combustible carbon) which enters the afterburner are oxidized to carbon dioxide and water; or

(B) a system demonstrated to have control efficiency equivalent to or greater than that provided under the applicable provision of Rule 205(n)(1) or Rule 205(n)(2)(A), as approved by the Agency.

(3) Exemptions

The limitations of Rule 205(n) shall not apply to:

(A) Coating plants whose emissions of volatile organic material as limited by the operating permit will not exceed 25 tons per year, in the absence of air pollution control equipment; or

(B) sources used exclusively for chemical or physical analysis or determination of product quality and commercial acceptance provided that:

(i) the operation of the source is not an integral part of the production process;

(ii) the emissions from the source do not exceed 363 kilograms (800 pounds) in any calendar month; and,

(iii) the exemption is approved in writing by the Agency.

(4) Internal Offsets

(A) After December 31, 1982, no person shall cause or allow the emission of volatile organic material fron any coating line to exceed any limitation contained in Rule 205(n)(1) unless the combined actual emission rate (E_{ACT}) from all coating lines at the coating plant, but not including coating lines or other sources constructed or modified after July 1, 1979, is less than or equal to the combined allowable emission rate (E_{ALL}) as determined by the following equations:

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

$$E_{ACT} = \sum_{j=1}^{m} \sum_{i=1}^{n} (C_i B_i (1 - D_i))_j$$

where

E_{ALL} = the allowable emission rate from the coating plant in kilograms per day (pounds per day).

A_i = the allowable emission rate for each coating pursuant to Rule 205(n)(1) in kilograms per liter (pounds per gallon) of coating, excluding water, delivered to the coating applicator.

B_i = the volume of each coating in liters per day (gallons per day), excluding water, delivered to the coating applicator.

m = the number of coating lines included in the combined emission rate.

n = the number of types of coatings delivered to the coating applicator.

E_{ACT} = the actual emission rate from the coating plant in kilograms per day (pounds per day).

C_i = the weight of volatile organic material per volume of coating in kg/l (lb/gal) for each coating applied.

D_i = the control efficiency by which emissions of volatile organic material from the coating are reduced through the use of control equipment.

(B) The owner or operator of the coating plant shall maintain records of the quantity and solvent content of each coating applied and the line to which it is applied in such a manner so as to assure compliance with E_{ALL}.

(C) Except for sources subject to Rule 205(f), credits for offsets from sources at the coating plant that are subject to Rule 205, other than coating lines, may be given, but only to the extent that they represent reductions from the allowable emission limits for such sources contained in either Rule 205, or any existing operating permit, whichever limit is less.

(5) Testing Methods

(A) The following methods of analyzing the solvent content of coatings, as revised from time to time, or any other equivalent procedure approved by the Agency, shall be used as applicable:

(i) ASTM D 1644-59 Method A

(ii) ASTM D 1475-60

(iii) ASTM D 2369-73

(iv) Federal Standard 141a, Method 4082.1

(B) Transfer efficiency shall be determined by a method, procedure or standard approved by the United States Environmental Protection Agency (USEPA), under the applicable New Source Performance Stan-

dard or until such time as USEPA has approved and published such a method, procedure or standard, by any appropriate method, procedure or standard approved by the Agency.

(6) No coating line subject to the limitations of Rule 205(n)(1) is required to meet Rule 205(f) after the date by which the coating line is required to meet Rule 205(n)(1).

(o) Bulk Gasoline Plants, Bulk Gasoline Terminals, and Petroleum Liquid Storage Tanks

(1) Bulk Gasoline Plants

(A) Subject to Rule 205(o)(1)(F), no person may cause or allow the transfer of gasoline from a delivery vessel into a stationary storage tank located at a bulk gasoline plant unless:

(1) the delivery vessel and the stationary storage tank are each equipped with a vapor balance system that meets the requirements of Rule 205(o)(1)(C);

(2) each vapor balance system is operating;

(3) delivery vessel hatches are closed at all times during loading operations, unless a top loading vapor recovery system is used;

(4) the pressure relief valve(s) on the stationary storage tank and the delivery vessel are set to release at no less than 0.7 psi or the highest pressure allowed by the state or local fire codes or the guidelines of the National Fire Prevention Association; and

(5) the stationary storage tank is equipped with a submerged loading pipe.

(B) Subject to Rule 205(o)(1)(G), no person may cause or allow the transfer of gasoline from a stationary storage tank located at a bulk gasoline plant into a delivery vessel unless:

(1) the requirements set forth in Rule 205(o)(1)(A) (1)-(4) are met; and

(2) equipment is available at the bulk gasoline plant to provide for the submerged filling of the delivery vessel or the delivery vessel is equipped for bottom loading.

(C) A vapor balance system shall include the following components:

(1) a vapor space connection on the stationary storage tank that is equipped with fittings which are vapor tight;

(2) a connecting pipe or hose that is equipped with fittings which are vapor tight; and

(3) a vapor space connection on the delivery vessel that is equipped with fittings which are vapor tight.

(D) Subject to Rule 205(o)(1)(F), each owner of a stationary storage tank located at a bulk gasoline plant shall:

(1) equip each stationary storage tank with a vapor control system that meets the requirements of Rule 205(o)(1)(A) or (B), whichever is applicable;

(2) provide instructions to the operator of the bulk gasoline plant describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and

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

(E) Subject to Rule 205(o)(1)(F), each operator of a bulk gasoline plant shall:

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

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

(3) maintain gauges, meters, or other specified testing devices in proper working order.

(F) The requirements of Rule 205(o)(1)(A), (D) and (E) shall not apply to:

(1) any stationary storage tank with a capacity of less than 575 gallons; or

(2) any bulk gasoline plant whose annual gasoline throughput is less than 350,000 gallons as averaged over the preceding 3 calendar years.

(G) The requirements of Rule 205(o)(1)(B) shall only apply to bulk gasoline plants:

(1) that have an annual gasoline throughput greater than or equal to 1,000,000 gallons, as averaged over the preceding 3 calendar years; and

(2) that either distribute gasoline to gasoline dispensing facilities subject to the requirements of Rule 205(p)(1)(B) or that are located in the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will or Winnebago.

(2) Bulk Gasoline Terminals

(A) No person may cause or allow the transfer of gasoline into any delivery vessel from any bulk gasoline terminal unless:

(1) the bulk gasoline terminal is equipped with a vapor control system that limits emissions of organic material to 80 milligrams per liter (0.00067 pounds per gallon) of gasoline loaded;

(2) the vapor control system is operating and all vapors displaced in the loading of gasoline to the delivery vessel are vented only to the vapor control system;

(3) there is no liquid drainage from the loading device when it is not in use; and

(4) all loading and vapor return lines are equipped with fittings which are vapor tight.

(B) Emissions of organic material from bulk gasoline terminals shall be determined by the procedure described in EPA-450/2-77-026, Appendix A, as revised from time to time, or by any other equivalent procedure approved by the Agency.

(3) Petroleum Liquid Storage Tanks

(A) The requirements of Rule 205(o)(3)(B) shall not apply to any stationary storage tank:

(1) equipped before January 1, 1979 with one of the vapor loss control devices specified in Rule 205(a)(2);

(2) With a capacity of less than 40,000 gallons;

(3) with a capacity of less than 442,675 gallons (1,600,000 liters) used to store produced crude oil and condensate prior to custody transfer;

(4) with a capacity of less than 9000 barrels (378,000 gallons) if used to store crude oil or condensate in crude oil gathering;

(5) subject to new source performance standards for storage vessels of petroleum liquid (40 C.F.R. Part 60, Subpart K); or

(6) in which volatile petroleum liquid is not stored.

(B) Subject to Rule 205(o)(3)(A) no owner or operator of a stationary storage tank

shall cause or allow the storage of any volatile petroleum liquid in the tank unless:

(1) the tank is equipped with one of the vapor loss control devices specified in Rule 205(a)(2);

(2) there are no visible holes, tears, or other defects in the seal or any seal fabric or material of any floating roof;

(3) all openings of any floating roof deck, except stub drains, are equipped with covers, lids, or seals such that:

(i) the cover, lid or seal is in the closed position at all times except when petroleum liquid is transferred to or from the tank;

(ii) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

(iii) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;

(4) routine inspections of floating roof seals are conducted through roof hatches once every six months;

(5) a complete inspection of the cover and seal of any floating roof tank is made whenever the tank is emptied for reasons other than the transfer of petroleum liquid during the normal operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect; and

(6) a record of the results of each inspection conducted under paragraph (B)(4) or (B)(5) of this subsection is maintained.

(p) Gasoline Dispensing Facility

(1) Subject to Rule 205(p)(2), no person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary storage tank at a gasoline dispensing facility unless:

(A) the tank is equipped with a submerged loading pipe; and

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

(1) a vapor balance system that meets the requirements of Rule 205(p)(6); or

(2) a refrigeration-condensation system or any other system approved by the Agency that recovers at least 90 percent by weight of all vaporized organic material from the equipment being controlled.

(2) The requirements of Rule 205(p)(1)(B) shall not apply to transfers of gasoline to a stationary storage tank at a gasoline dispensing facility if:

(A) the tank is equipped with a floating roof or other system of equal or better emission control as approved by the Agency;

(B) the tank has a capacity of less than 2000 gallons and is in place and operating before January 1, 1979;

(C) the tank has a capacity of less than 575 gallons; or

(D) the tank is not located in any of the following counties: Boone, Cook, DuPage, Kane, Lake, Madison, McHenry, Peoria, Rock Island, St. Clair, Tazewell, Will, or Winnebago.

(3) Subject to Rule 205(p)(2), each owner of a gasoline dispensing facility shall:

(A) install all control systems and make all process modifications required by Rule 205(p)(1);

(B) provide instructions to the operator of the gasoline dispensing facility describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunction of a vapor control system; and

(C) repair, replace or modify any worn out or malfunctioning component or element of design.

(4) Subject to Rule 205(p)(2), each operator of a gasoline dispensing facility shall:

(A) maintain and operate each vapor control system in accordance with the owner's instructions;

(B) promptly notify the owner of any scheduled maintenance or malfunction requiring replacement or repair of a major component of a vapor control system; and

(C) maintain gauges, meters, or other specified testing devices in proper working order.

(5) Any delivery vessel equipped for vapor recovery by use of a vapor control system shall be designed and maintained to be vapor tight at all times during normal operations and shall not be refilled in Illinois at other than:

(A) a bulk gasoline terminal that complies with the requirements of Rule 205(o)(2); or

(B) a bulk gasoline plant that complies with the requirements of Rule 205(o)(1)(B).

(6) A vapor balance system shall include the following components:

(A) a vapor space connection on the stationary storage tank that is equipped with fittings which are vapor tight;

(B) a connecting pipe or hose that is equipped with fittings which are vapor tight and equipment that ensures that the pipe or

hose is connected before gasoline can be transferred; and

(C) a vapor space connection on the delivery vessel that is equipped with fittings which are vapor tight.

(q) Cutback Asphalt. After December 31, 1980, no person shall cause or allow the use or application of cutback asphalt for paving, resurfacing, reconditioning, repairing, or otherwise maintaining a roadway unless:

(1) the use or application of the cutback asphalt commences on or after October 1st of any year and such use or application is completed by April 30th of the following year; or

(2) the cutback asphalt is a long-life stockpile material which remains in stock after April 30th of each year and as such it may be used until depleted for patching potholes and for other similar repair work; or

(3) the cutback asphalt is to be used solely as an asphalt prime coat.

(r) Operation of Oil Fired and Natural Gas Fired Afterburners. The operation of any oil fired or natural gas fired afterburner and capture system used to comply with Rule 205 or any section thereof is not required during the period of November 1 of any year to April 1 of the following year provided that:

(1) the operation of such devices is not required for purposes of occupational safety or health, or for the control of toxic substances, odor nuisances or other regulated pollutants; and

(2) such devices are operated for the duration of any period for which an Ozone Advisory, Alert or Emergency has been declared pursuant to Part IV: Episodes of the Air Pollution Control Regulations.

The Board hereby retains jurisdiction in this proceeding. In the event that changes become necessary for Federal approval of the Illinois implementation plan or to clarify the Board's intent, the proceeding will be reopened. This Order may be construed as a final action for purposes of judicial review under Sections 29 and 41 of the Act.

IT IS SO ORDERED.

Messrs. Young and Werner dissent.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify the above Order was adopted on the 12th day of July, 1979 by a vote of 3-2.

Christan L. Moffett
Christan L. Moffett, Clerk
Illinois Pollution Control Board