
AIR POLLUTION CONTROL RULES

PART 1. GENERAL PROVISIONS

As Amended March 28, 2008



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Michigan Department of Environmental Quality

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TABLE OF CONTENTS

PART 1. GENERAL PROVISIONS

| | | |
|------------|-------------------------------|----|
| R 336.1101 | Definitions; A..... | 1 |
| R 336.1102 | Definitions; B..... | 4 |
| R 336.1103 | Definitions; C..... | 5 |
| R 336.1104 | Definitions; D..... | 10 |
| R 336.1105 | Definitions; E..... | 10 |
| R 336.1106 | Definitions; F..... | 11 |
| R 336.1107 | Definitions; G..... | 13 |
| R 336.1108 | Definitions; H..... | 14 |
| R 336.1109 | Definitions; I..... | 14 |
| R 336.1112 | Definitions; L..... | 15 |
| R 336.1113 | Definitions; M..... | 16 |
| R 336.1114 | Definitions; N..... | 16 |
| R 336.1115 | Definitions; O..... | 17 |
| R 336.1116 | Definitions; P..... | 18 |
| R 336.1118 | Definitions; R..... | 23 |
| R 336.1119 | Definitions; S..... | 25 |
| R 336.1120 | Definitions; T..... | 29 |
| R 336.1121 | Definitions; U..... | 32 |
| R 336.1122 | Definitions; V..... | 32 |
| R 336.1123 | Definitions; W..... | 36 |
| R 336.1127 | Terms defined in the act..... | 37 |
| R 336.1128 | Rescission..... | 37 |



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

As Amended March 28, 2008

PART 1. GENERAL PROVISIONS

R 336.1101 Definitions; A.

Rule 101. As used in these rules:

(a) "**Act**" means 1994 PA 451, MCL 324.5503 and 324.5512 et seq.

(b) "**Actual emissions**" means the average rate, in tons per year, at which the process or process equipment actually emitted the air contaminant during the preceding 2-year period and which was representative of the normal operation of the process or process equipment. A different time period may be used if the time period can be demonstrated to be more representative of normal operation. Actual emissions shall be calculated using the process's or process equipment's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period. The department may presume that the actual emissions for a process or process equipment shall equal the allowable emissions for such process or process equipment if the allowable emissions are identified in the demonstration for an approved state implementation plan. For any process or process equipment that has not begun normal operations, actual emissions shall equal the allowable emissions. The term "actual emissions" is not applicable in parts 6 and 7 of these rules.

(c) "**Adhesion prime**" means a coating that is applied to a polyolefin part to promote the adhesion of a subsequent coating. An adhesion prime is clearly identified as an adhesion prime or adhesion promoter on its accompanying material safety data sheet.

(d) "**Affected states**" means all states that are contiguous to the state of Michigan and whose air quality may be affected by a proposed operating permit, operating permit modification, or operating permit renewal or that are within 50 miles of the stationary source for which a permit action is proposed.

(e) "**Air-cleaning device**" means air pollution control equipment.

(f) "**Air contaminant**" means a dust, fume, gas, mist, odor, smoke, vapor, or any combination thereof.

(g) "**Air-dried coating**" means a coating that is dried by the use of air or forced warm air at temperatures up to 90 degrees Celsius (194 degrees Fahrenheit).

- (h) "**Air pollution**" has the same meaning as defined in section 2 of the act.
- (i) "**Air pollution control equipment**" means any method, process, or equipment that removes, reduces, or renders less noxious air contaminants discharged into the atmosphere.
- (j) "**Air quality standard**" means the concentration and duration of an air contaminant specified by the department or by the national ambient air quality standards as contained in the provisions of 40 C.F.R. part 50 (2002), whichever is more restrictive, as the maximum acceptable concentration and duration of that contaminant in the ambient air.
- (k) "**Allowable emissions**" means the emission rate calculated using the maximum rated capacity of the process or process equipment, unless there are legally enforceable limits that restrict the operating rate or the hours of operation, or both, and the most stringent of the following:
- (i) Any applicable standards pursuant to the clean air act.
 - (ii) Any applicable emission limit specified in these rules, including a limit that has a future compliance date.
 - (iii) Any applicable emission rate specified as a legally enforceable permit condition or voluntary agreement, performance contract, stipulation, or order of the department, including a rate that has a future compliance date.
- (l) "**Alternate opacity**" means that standard for density of emission which is greater than the standard specified in R 336.1301(1) and which is established by the department for a specific process or process equipment in accordance with the provisions of R 336.1301(4).
- (m) "**Alternative method**," with respect to source sampling, means a method or set of procedures for obtaining source samples which is not a reference test method or an equivalent method and which has been demonstrated, to the department's satisfaction, to, in specific cases, produce results adequate for a performance test.
- (n) "**Ambient air**" means that part of the atmosphere outside of buildings to which the general public has access.
- (o) "**Applicable requirement**" means any of the following as they apply to process or process equipment, including requirements that have been approved as administrative rules under the act pursuant to 1969 PA 306, MCL 24.201 et seq. or promulgated by the United States environmental protection agency through final rulemaking at the time of issuance of a permit under the act and which will become effective during the permit term:
- (i) A standard or other requirement provided for in the Michigan state implementation plan, as approved or promulgated by the United States environmental protection agency through rulemaking under title I of the clean air act, that implements the relevant requirements of the clean air act, including any revisions to that plan promulgated in 40 C.F.R. part 52.
 - (ii) A standard or requirement enacted as a part of the act or promulgated in administrative rules pursuant to the act.

(iii) A term or condition of any permit issued pursuant to the act or regulations approved or promulgated through rulemaking under title I, including parts c or d, of the clean air act.

(iv) A term or condition of an order entered pursuant to the act that is necessary to ensure or demonstrate compliance with any other applicable requirement.

(v) A term or condition of a permit issued by the United States environmental protection agency pursuant to title I, subpart c, of the clean air act.

(vi) A term or condition of any permit issued pursuant to the Wayne county air pollution control ordinance, adopted pursuant to the home rule charter for Wayne county, resolution no. 85-305, as amended by resolution no. 89-213.

(vii) A term or condition of an order entered pursuant to the Wayne county air pollution control ordinance, adopted pursuant to the home rule charter for Wayne county, resolution no. 85-305, as amended by resolution no. 89-213, that is necessary to ensure or demonstrate compliance with any other applicable requirement.

(viii) A standard or other requirement under the clean air act, including any of the following:

(A) A standard for the performance of new stationary sources or other requirement under section 111 of the clean air act, including section 111(d).

(B) A standard for hazardous air pollutants or other requirement under section 112 of the clean air act, including any requirement concerning accident prevention under section 112(r)(7) of the clean air act.

(C) A standard or other requirement of the acid rain program under title IV of the clean air act or the regulations promulgated thereunder.

(D) A requirement for enhanced monitoring established pursuant to sections 114(a)(3) or 504(b) of the clean air act.

(E) A standard or other requirement governing solid waste incineration under section 129 of the clean air act.

(F) A standard or other requirement for consumer and commercial products under section 183(e) of the clean air act.

(G) A standard or other requirement for tank vessels under section 183(f) of the clean air act.

(H) A standard or other requirement of the regulations promulgated to protect stratospheric ozone under title VI of the clean air act, unless the administrator of the United States environmental protection agency has determined that the standard or requirement need not be contained in a renewable operating permit required under title V of the clean air act.

(I) A national ambient air quality standard or increment or visibility requirement under part C of title I of the clean air act, but only as it would apply to temporary sources.

Any applicable requirement which results solely from the requirements of the act, the rules promulgated under the act, or the home rule charter for Wayne county, resolution no. 85-305, as amended by resolution no. 89-213, shall not be enforceable under the clean air act.

(p) "**Applicant**" means a person who owns or operates a stationary source and who files an application for a permit with the department.

(q) "**ASTM**" means the American society for testing and materials.

(r) "**Automobile**" means any passenger motor vehicle capable of seating not more than 12 occupants.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1985 MR 2, Eff. Feb. 22, 1985; 1988 MR 3, Eff. Mar. 18, 1988; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1993 MR 4, Eff. Apr. 28, 1993; 1993 MR 11, Eff. Nov. 18, 1993; 1995 MR 7, Eff. July 26, 1995; 2000 MR 4, Eff. Apr. 10, 2000; 2003 MR 12, Eff. July 1, 2003.

R 336.1102 Definitions; B.

Rule 102. As used in these rules:

(a) "Best available control technology for toxics" or "T-BACT" means the maximum degree of emission reduction which the department determines is reasonably achievable for each process that emits toxic air contaminants, taking into account energy, environmental, and economic impacts and other costs.

(b) "Best available information" means data which serves as the basis for a risk assessment. Such information may be taken from the scientific literature or the integrated risk information system database maintained by the United States environmental protection agency or from other databases, as appropriate. The term includes other pertinent studies or reports containing data which the department finds to be of adequate quality for use in the risk assessment.

(c) "Black coating" means a coating which meets both of the following criteria:

(i) Maximum lightness: 23 units.

(ii) Saturation: less than 2.8, where saturation equals the square root of $A^2 + B^2$.

These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, maximum lightness is 33 units.

(d) "Blending tank," as it pertains to R 336.1631, means any vessel in which organic resin and solvent or other materials are added to produce a product blend.

(e) "Business machine" means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, including devices listed in standard industrial classification numbers 3572, 3573, 3574, 3579, and 3661 and photocopy machines, a subcategory of standard industrial classification number 3861.

History: 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1992 MR 4, Eff. Apr. 17, 1992; 2002 MR 10, Eff. May 28, 2002; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1103 Definitions; C.

Rule 103. As used in these rules:

(a) "Calendar day" means a 24-hour time period which normally is midnight to midnight, but which may, upon written notification to the department, cover a different, consecutive 24-hour time period for a specific process.

(b) "Capacity factor" means the ratio of the average load on a machine or equipment for the period of time considered to the capacity rating of the machine or equipment.

(c) "Carcinogen" means any of the following:

(i) Group A -- Any substance for which there is sufficient evidence from human epidemiological studies to support a causal association between exposure to the agent and cancer.

(ii) Group B -- Any substance for which the weight of evidence of human carcinogenicity based on epidemiological studies is limited evidence or for which the weight of evidence of carcinogenicity based on animal studies is sufficient evidence.

(iii) Group C -- Any substance for which there is limited evidence of carcinogenicity in animals in the absence of human data and which causes a significant increased incidence of benign or malignant tumors in a single, well-conducted animal bioassay.

(d) "Charging period," with respect to coke ovens utilizing larry car charging methodology, means the total time taken between the point at which the coal starts flowing into the oven and the point at which the leveling door and the charging holes are closed with their respective lids after the coal from the larry car hoppers is emptied into the oven being charged through the respective charging holes and the coal has been leveled in the oven. "Charging period," with respect to coke ovens utilizing pipeline charging methodology, means the total time taken from the time at which the coal starts flowing into an oven by opening the preheated coal inlet valve to the time at which the coal flow ends when the inlet valve is closed.

(e) "Class II hardboard paneling finish" means a finish that meets the specifications of voluntary product standard PS-59-73, as approved by the American national standards institute.

(f) "Clean air act" means chapter 360, 69 stat. 322, 42 U.S.C. §§7401 to 7431, 7470 to 7479, 7491 to 7492, 7501 to 7509a, 7511 to 7515, 7521 to 7525, 7541 to 7545, 7547 to 7550, 7552 to 7554, 7571 to 7574, 7581 to 7590, 7601 to 7612, 7614 to 7617, 7619 to 7622, 7624 to 7627, 7641 to 7642, 7651 to 7651o, 7661 to 7661f, and 7671 to 7671q and regulations promulgated under the clean air act.

(g) "Clean charge" means furnace charge materials, including molten metal; t-bar; sow; ingot; billet; pig; alloying elements; uncoated/unpainted thermally dried metal chips; metal scrap dried at 343 degrees Celsius (650 degrees Fahrenheit) or higher; metal scrap delacquered/decoated at 482 degrees Celsius (900 degrees Fahrenheit) or higher; other oil and lubricant-free unpainted/uncoated gates and risers; oil and lubricant-free unpainted/uncoated scrap, shapes, or products (for example, pistons) that have not undergone any process (for example, machining, coating, painting) that would cause contamination of the metal (with oils, lubricants, coatings, or paints) and on-site runaround.

(h) "Clear coating" means a coating which lacks color and opacity or is transparent and which uses the undercoat as a reflectant base or undertone color.

(i) "Clinical testing of pharmaceuticals" means human or animal health studies conducted consistent with applicable government regulations, guidelines, or directions for approval of a pharmaceutical product, such as those monitored by the United States food and drug administration for the purpose of determining any of the following with respect to a drug:

- (i) Pharmacological action.
- (ii) Preferred route of administration.
- (iii) Safe dosage range.
- (iv) Optimum dosage schedule.
- (v) Safety and effectiveness.
- (vi) Product label indications.

(j) "Coating category" means a type of surface coating for which there is a separate emission limit specified in these rules.

(k) "Coating line" means an operation which is a single series in a coating process and which is comprised of 1 or more coating applicators and any associated flash-off areas, drying areas, and ovens wherein 1 or more surface coatings are applied and subsequently dried or cured.

(l) "Coating of automobiles and light-duty trucks" means the application of prime, primer surfacer, topcoat, and final repair to sheet metal and metallic body components during assembly of a vehicle. Examples of these sheet metal and metallic body components include all of the following:

- (i) Bodies.
- (ii) Fenders.
- (iii) Cargo boxes.
- (iv) Doors.
- (v) Grill openings.

(m) "Coating of cans" means exterior coating and interior spray coating in 2-piece can lines; interior and exterior coating in sheet coating lines for 3-piece cans; side seam spray coating and interior spray coating in can fabricating lines for 3-piece cans; and sealing compound application and sheet coating in end coating lines.

(n) "Coating of coils" means the coating of any flat metal sheet or strip that comes in rolls or coils.

(o) "Coating of fabric" means the application of any type of coating to flat sheets of a textile substrate, including the application of coatings by saturation or impregnation.

(p) "Coating of flat wood paneling" means the factory-finished coating of flat products which are constructed of wood and which are intended for use as interior paneling. This

definition does not apply to the coating of flat wood products intended for use as exterior siding, tileboard, cabinets, or furniture components.

(q) "Coating of large appliances" means the coating of the component metal parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other associated products. Examples of these component metal parts include all of the following:

- (i) Doors.
- (ii) Cases.
- (iii) Lids.
- (iv) Panels.
- (v) Interior support parts.

(r) "Coating of metal furniture" means the coating of any furniture made of metal and includes the coating of any metal part that is or shall be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

(s) "Coating of paper" means the application of any decorative, functional, or saturation coating applied across the entire width of any flat sheet or pressure-sensitive tape, regardless of substrate, or applied across a partial width of any flat sheet or pressure-sensitive tape, regardless of substrate, if this partial coverage is not considered to be an operation or series of operations that is included in the definition of graphic arts line in R 336.1107(e). These applications and substrates include paper, fabric, or plastic film; related wet-coating processes on plastic film, including typewriter ribbons, photographic film, and magnetic tape; and decorative coatings on metal foil, including gift wrapping and packaging.

(t) "Coating of plastic parts of automobiles and trucks" means the coating of any plastic part that is or shall be assembled with other parts to form an automobile or truck.

(u) "Coating of plastic parts of business machines" means the coating of any plastic part that is or shall be assembled with other parts to form a business machine.

(v) "Coating of vinyl" means any printing, decorative coating, or protective topcoat applied over vinyl-coated fabric or vinyl rolls or sheets. Coating of vinyl does not include the application or plastisols.

(w) "Coke battery" means a series of coke ovens arranged side by side with an integral heating system.

(x) "Coke oven" means a chamber in which coal is destructively distilled to yield coke.

(y) "Cokeside," with respect to a coke oven, means that side of the coke oven through which coke is discharged.

(z) "Coking cycle" means the time during which coal undergoes destructive distillation in a coke oven. It commences at the end of the charging period and ends at the beginning of the pushing operation, but does not include any decarbonization periods.

(aa) "Cold cleaner" means a tank containing organic solvent at a temperature below its boiling point which is used to spray, brush, flush, or immerse a metallic object for the purpose of cleaning or degreasing.

(bb) "Commercial location" means a publicly or privately owned place where persons are engaged in the exchange or sale of goods or services and multiple housing units designed for 3 or more families, except for elementary and secondary schools and facilities owned and operated by the state government. A separate building or group of buildings used for the exchange or sale of goods or services and having a single owner and manager constitutes a separate commercial location.

(cc) "Completed organic resin" means organic resin solids, solvents, and additives as deliverable for sale or use, including a dry organic resin.

(dd) "Compliance plan" means a description of the compliance status of a source with respect to all applicable requirements for each process or process equipment as follows:

(i) For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with the requirements.

(ii) For applicable requirements that will become effective during the permit term, a statement that the source will meet the requirements on a timely basis.

(iii) For applicable requirements for which the stationary source is not in compliance at the time of permit issuance, a narrative description of how the stationary source will achieve compliance with the requirements.

(ee) "Component" means 1 of the following:

(i) As it pertains to the provisions of R 336.1622, "component" means any piece of equipment that has the potential to leak a volatile organic compound and includes all of the following:

- (A) Pump seals.
- (B) Compressor seals.
- (C) Seal oil degassing vents.
- (D) Pipeline valves.
- (E) Flanges and other connections.
- (F) Pressure-relief devices.
- (G) Process drains.
- (H) Open ended pipes.

(ii) As it pertains to the provisions of R 336.1628, "component" means all of the following:

- (A) Compressor seals.
- (B) Process valves in light liquid or gaseous volatile organic compound service.
- (C) Pressure-relief valves in gaseous volatile organic compound service.
- (D) Seals of pumps in light liquid service.

(iii) As it pertains to the provisions of R 336.1629, "component" means all of the following:

- (A) Compressor seals.

- (B) Process valves.
- (C) Pressure-relief valves.
- (D) Pump seals.

This definition does not include a valve that is not externally regulated, that is, a valve which has no external controls and thus does not have the potential to leak a volatile organic compound.

(ff) "Component in field gas service" means a component that processes, transfers, or contains field gas.

(gg) "Component in gaseous volatile organic compound service" means a component that processes, transfers, or contains a volatile organic compound in the gaseous phase under actual conditions.

(hh) "Component in heavy liquid service" means a component that processes, transfers, or contains heavy liquid.

(ii) "Component in light liquid service" means a component that contacts a light liquid containing more than 10% volatile organic compound by weight.

(jj) "Component in liquid volatile organic compound service" means a component that processes, transfers, or contains a volatile organic compound in the liquid phase under actual conditions.

(kk) "Condenser" means a device that effects the removal of an air contaminant from an exhaust stream by a physical change of state from a vapor to a liquid or solid form.

(ll) "Control equipment" means air pollution control equipment.

(mm) "Conventional air-atomizing spray equipment" means a device which is designed to atomize and direct fluid material solely through the use of compressed air and which is capable of operating at air pressures of more than 10 pounds per square inch.

(nn) "Conveyorized cold cleaner" means any continuous system that transports metallic objects through a bath containing organic solvent at a temperature below its boiling point for the purpose of cleaning or degreasing.

(oo) "Conveyorized vapor degreaser" means any continuous system that transports metallic objects through or over, or through and over, a bath containing organic solvent that is heated to its boiling point for the purpose of cleaning or degreasing.

(pp) "Cutback paving asphalt" means asphalt cement which has been liquefied by blending with a volatile organic compound and which is used for the purpose of paving or repairing, or paving and repairing, a road surface.

(qq) "Cycle of operation," with respect to continuous emission monitoring systems, means the total time a monitoring system requires to sample, analyze, and record an emission measurement.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1985 MR 2, Eff. Feb. 22, 1985; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992; 1993 MR 4, Eff. Apr. 28, 1993; 1993 MR 11, Eff. Nov. 18, 1993; 1995 MR 7, Eff. July 26, 1995; 2003 MR 12, Eff. July 1, 2003; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1104 Definitions; D.

Rule 104. As used in these rules:

- (a) "Decarbonization period," with respect to coke ovens, means the time for combusting carbon formed at the oven roof and in the standpipe assembly. The decarbonization period commences when a charging-hole lid or lids or a standpipe lid or lids are removed or opened near the end of the coking cycle and ends with the initiation of the next charging period.
- (b) "Delivery vessel" means any tank truck, tank-equipped trailer, railroad tank car, or any similar vessel equipped with a storage tank used for the transport of a volatile organic compound from sources of supply to any stationary vessel.
- (c) "Demolition waste material" means waste building materials that result from demolition operations on houses and commercial and industrial buildings.
- (d) "Department" means the director of the department of environmental quality or his or her designee.
- (e) "Difficult-to-monitor component" means a component that can only be monitored by elevating the monitoring personnel more than 6 feet above a support surface.
- (f) "Dry organic resin" means the organic resin solids from which all liquids have been removed, as deliverable for sale or use.
- (g) "Dispensing facility" means a location where gasoline is transferred to a motor vehicle tank from a stationary vessel.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1989 MR 4, Eff. Apr. 19, 1989; 1993 MR 11, Eff. Nov. 18, 1993; 2000 MR 4, Eff. Apr. 10, 2000; 2002 MR 10, Eff. May 28, 2002; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1105 Definitions; E.

Rule 105. As used in these rules:

- (a) "Electrostatic prep coat" means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime, 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.
- (b) "Emission unit" means any part of a stationary source that emits or has the potential to emit an air contaminant. Examples of emission units include the following:
 - (i) A fossil fuel-fired, steam-generating unit.
 - (ii) A topcoat painting line.
 - (iii) A solid waste incinerator.
 - (iv) A clinker cooler at a Portland cement plant.
 - (v) A process unit at a chemical plant.

(c) "Equipment utilized in the manufacturing of synthesized pharmaceutical products" means equipment associated with the storage, transfer, or manufacturing of pharmaceutical products, including raw materials and intermediate products, by chemical synthesis. This definition does not include equipment associated with the manufacturing of pharmaceutical products by fermentation or extraction, the formulation or packaging of bulk pharmaceuticals, or the processing of waste resulting from pharmaceutical synthesis.

(d) "Equivalent method," with respect to source sampling, means a method or set of procedures for obtaining source samples that has been demonstrated to the department's satisfaction to have a consistent and quantitatively known relationship to an applicable reference test method.

(e) "Excess air" means any air in excess of the amount of air required for complete combustion of a material as determined by using reference test method 3 of appendix A to the department's rules.

(f) "Excess emissions" means emissions of an air contaminant in excess of any applicable emission limitation.

(g) "External floating roof stationary vessel" means an open top stationary vessel equipped with a cover or roof which rests upon and is supported by the liquid being contained and which has a closure seal or seals to reduce the space between the cover or roof edge and the vessel wall.

(h) "Extreme environmental conditions" means any of the following:

(i) Outdoor weather.

(ii) Temperatures consistently above 95 degrees Celsius (203 degrees Fahrenheit).

(iii) Detergents.

(iv) Abrasive and scouring agents.

(v) Solvents.

(vi) Corrosive atmospheres.

(vii) Other similar harsh conditions.

(i) "Extreme performance coating" means a coating which is designed to protect a coated part from extreme environmental conditions and which is applied to a part that, in its use as a finished product, is intended to be subjected to extreme environmental conditions.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1993 MR 4, Eff. Apr. 28, 1993; 1993 MR 11, Eff. Nov. 18, 1993; 1994 MR 2, Eff. Mar. 31, 1994; 2002 MR 10, Eff. May 28, 2002; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1106 Definitions; F.

Rule 106. As used in these rules:

(a) **"Federally enforceable"** means that a limitation or condition is enforceable by the United States environmental protection agency. Limitations and conditions which are

enforceable by the United States environmental protection agency include requirements developed pursuant to 40 C.F.R. parts 60, 61, and 63; requirements within the state implementation plan; any renewable operating permit requirement designated as federally enforceable pursuant to R 336.1213(1)(a); and any permit requirement established pursuant to 40 C.F.R. §52.21, R 336.1220, R 336.1208, or R 336.1201(1)(a).

(b) **"Field gas"** means a feedstock gas entering a natural gas processing plant.

(c) **"Field testing"** means the limited use or distribution of a product to determine the quality of the product, including its suitability for its intended end use.

(d) **"Fixed roof stationary vessel"** means a stationary vessel with a roof connected in a rigid fashion to the side walls of the vessel, a spherically-shaped vessel, or a pressure vessel designed to maintain a specific working pressure.

(e) **"Flexible coating"** means any coating that is required to comply with engineering specifications for impact resistance, mandrel bend, or elongation as defined by the original equipment manufacturer.

(f) **"Flexographic printing"** means the application of words, designs, or pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.

(g) **"Fog coat"** means a coating that is applied to a plastic part for the purpose of color matching without masking a molded-in texture. A fog coat shall not be applied at a thickness of more than 0.5 mils of coating solids.

(h) **"Fossil fuel-fired steam generator"** means a furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.

(i) **"Fuel-burning equipment"** means a device, contrivance, or equipment used principally, but not exclusively, for the burning of fuel, and all appurtenances thereto, including ducts, breechings, control equipment, fuel-feeding equipment, ash removal equipment, combustion controls, and stacks and chimneys, which equipment is used for indirect heating in which the material being heated is not contacted by, and does not add substance to, the products of combustion. This equipment typically includes that used for all of the following:

(i) Heating water to boiling.

(ii) Raising steam or superheating steam.

(iii) Heating air as in a warm-air furnace.

(iv) Furnishing process heat that is conducted through vessel walls.

(v) Furnishing process heat indirectly through its transfer by fluids.

(j) **"Fuel gas system"** means any system in which gas generated by a petroleum refinery process unit is combusted, including any gaseous mixture of natural gas with such gas, and is not commercially sold.

(k) **"Fugitive dust"** means particulate matter which is generated from indoor processes, activities, or operations and which is emitted into the outer air through building openings and

general exhaust ventilation, except stacks. The term also means particulate matter which is emitted into the outer air from outdoor processes, activities, or operations due to the forces of the wind or human activity.

(l) "**Fugitive emissions**" means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 5, Eff. Feb. 18, 1981; 1979 ACS 7, Eff. Aug. 22, 1981; 1985 MR 2, Eff. Feb. 22, 1985; 1989 MR 4, Eff. Apr. 19, 1989; 1992 MR 4, Eff. Apr. 17, 1992 ; 2003 MR 12, Eff. July 1, 2003.

R 336.1107 Definitions; G.

Rule 107. As used in these rules:

(a) "**Gasoline**" means any petroleum distillate which has a Reid vapor pressure equal to or greater than 4.0 psia and which is used for automotive fuel.

(b) "**Geographical site**" means contiguous land ownership by 1 landowner. A public right of way, such as a road, railroad, and watercourse, through part of the site, is not considered to break the continuity. Where transmission and fuel delivery rights-of-way or a strip of land that serves no other purpose than as a transportation or materials handling link connects 2 or more otherwise separate geographical sites, the connected sites shall be considered separate geographical sites.

(c) "**Good engineering practice design**" means, with respect to stack heights, the height necessary to ensure that emissions from the stack result in acceptable concentrations of air contaminants in the immediate vicinity of the stationary source as a result of atmospheric downwash, eddies, and wakes which may be created by the stationary source itself, nearby structures, or nearby terrain obstacles and shall not exceed the greatest of the following limits:

(i) Two hundred and thirteen feet (65 meters).

(ii) Two and one-half times the height of the structure or nearby structure for those stacks for which construction or modification commenced on or before January 12, 1979, if the owner or operator produces evidence that this relationship was actually relied upon in designing the stack to ensure protection against downwash.

(iii) The sum of the height of the structure or nearby structure plus 1.5 times the lesser of the height or width of the structure or nearby structure for those stacks for which construction or modification commenced after January 12, 1979.

(iv) Such height as an owner or operator of a stationary source demonstrates, to the satisfaction of the department, is necessary through the use of field studies or fluid models after notice and opportunity for public hearing.

(d) "**Gloss reducer**" means a coating that is applied to a plastic part solely to reduce the shine of the part. A gloss reducer shall not be applied at a thickness of more than 0.5 mils of coating solids.

(e) "**Graphic arts line**" means an operation or series of operations in which printing (the formation of words), designs, or pictures on a substrate by means of partial coverage of the

substrate are employed. A graphic arts line may also employ 1 or more coating operations in which a uniform layer of coating is applied either across the entire width of the substrate or across only certain portions of the substrate.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1989 MR 4, Eff. Apr. 20, 1989; 2002 MR 10, Eff. May 28, 2002.

R 336.1108 Definitions; H.

Rule 108. As used in these rules:

(a) "**Hardboard**" means a panel manufactured primarily from interfelted ligno-cellulosic fibers which are consolidated under heat and pressure in a hot press.

(b) "**Hardwood plywood**" means plywood whose surface layer is a veneer of hardwood.

(c) "**Heavy liquid**" means a liquid which is less than 10% evaporated at 150 degrees Centigrade as determined by ASTM method d-86. [ASTM d-86](#) is herein adopted by reference in these rules. A copy may be inspected at the Lansing office of the air quality division of the department of environmental quality. A copy may be obtained from the Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, at a cost of \$40.00. A copy may also be obtained from the [American Society for Testing and Materials](#), 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, at a cost of \$40.00.

(d) "**High bake coating**" means a coating which is designed to cure only at temperatures of more than 90 degrees Celsius (194 degrees Fahrenheit).

(e) "**High-speed dispersion mill**" means a mixer that has 1 or more blades which rotate at high speed to disperse coating solids.

History: 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 2002 MR 10, Eff. May 28, 2002.

R 336.1109 Definitions; I.

Rule 109. As used in these rules:

(a) "Incinerator" means a device specifically designed for the destruction, by burning, of garbage or other combustible refuse or waste material, or both, in which the products of combustion are emitted into the outer air by passing through a stack or chimney.

(b) "Inhalation reference concentration" or "RfC" means a conservative estimate of the daily exposure to the human population, including sensitive subgroups, that is likely to be without appreciable risk of deleterious effect during a lifetime. The inhalation reference concentration is for continuous inhalation exposures and is expressed in units of milligrams per cubic meter (mg/m³).

(c) "Initial risk screening level" means the concentration of a possible, probable, or known human carcinogen in ambient air which has been calculated for regulatory purposes, according

to the risk assessment procedures in R 336.1229(1), to produce an estimated upper-bound lifetime cancer risk of 1 in 1,000,000.

(d) "Initial threshold screening level" means a concentration of toxic air contaminant in the ambient air which is used to evaluate noncarcinogenic health effects from a proposed new or modified process and which is calculated, for regulatory purposes, according to the procedures in R 336.1229(2).

(e) "Insulation of magnet wire" means the process of coating aluminum or copper electrical wire by application of a nonconductive material, such as varnish or enamel.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1992 MR 4, Eff. Apr. 17, 1992; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1112 Definitions; L.

Rule 112. As used in these rules:

(a) "Light-duty truck" means any motor vehicle which is rated at not more than 8,500 pounds gross vehicle weight and which is designed primarily for the transportation of property, including pickups, vans, and window vans.

(b) "Light liquid," as it pertains to R 336.1628, means a liquid that contains 1 or more volatile organic compounds which have vapor pressures of more than 0.04 psia at 20 degrees Centigrade if the total concentration of the pure volatile organic compounds which have vapor pressures of more than 0.04 psia at 20 degrees Centigrade is equal to or greater than 20%, by weight, of the liquid and if the fluid is a liquid at operating conditions.

(c) "Limited evidence," a term of art, means either of the following:

(i) In human epidemiological studies, the data indicate that a causal relationship between the agent and human cancer is credible, but that alternative explanations, such as chance, bias, or confounding variables, could not be adequately excluded.

(ii) In animal studies, data suggest a carcinogenic effect, but are limited because of any of the following:

(A) The studies involve a single species, strain, or experiment and do not meet criteria for sufficient evidence.

(B) The experiments are restricted by any of the following:

(1) *Inadequate dosage levels.*

(2) *Inadequate duration or exposure to the agent.*

(3) *Inadequate period of follow-up.*

(4) *Poor survival.*

(5) *Too few animals.*

(6) *Inadequate reporting.*

(C) The data show an increase in the incidence of benign tumors only.

(d) "Linearized multistage computer model" means a dose-response model which assumes that there are a number of distinct biological stages or changes that must occur for a normal cell to be transformed into a tumor and which assumes the dose-response relationship to be linear at low doses.

(e) "Loading facility" means a location where volatile organic compounds are received from sources of supply and are stored for later delivery to another facility.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1113 Definitions; M.

Rule 113. As used in these rules:

(a) "Malfunction" means any sudden, infrequent and not reasonably preventable failure of a source, process, process equipment, or air pollution control equipment to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(b) "Market testing and market development" means the limited or general distribution of a product to the consumer to gather information concerning the demand for the product.

(c) "Material handling equipment," as referenced in table 31, means a device, contrivance, or equipment used to bag, blend, convey, crush, grind, load, mill, mix, shed, store, transfer, or unload a physical substance.

(d) "Material recovery equipment" means any equipment utilized in the transport and recovery of styrene monomer and other impurities from other products and by-products in the manufacture of polystyrene resin by continuous process, including the styrene devolatilizer unit and styrene recovery unit.

(e) "Modify" means making a physical change in, or change in the method of operation of, existing process or process equipment which increases the amount of any air contaminant emitted into the outer air which is not already allowed to be emitted under the conditions of a permit or order or which results in the emission of any toxic air contaminant into the outer air not previously emitted. An increase in the hours of operation or an increase in the production rate up to the maximum capacity of the process or process equipment shall not be considered to be a change in the method of operation unless the process or process equipment is subject to enforce-able permit conditions or enforceable orders which limit the production rate or the hours of operation, or both, to a level below the proposed increase.

(f) "Motor vehicle" means any self-propelled vehicle registered for, or requiring registration for, use on the highway.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992; 1993 MR 11, Eff. Nov. 18, 1993; 1995 MR 7, Eff. July 26, 1995; 2002 MR 10, Eff. May 28, 2002; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1114 Definitions; N.

Rule 114. As used in these rules:

(a) "Natural finish hardwood plywood panel" means a panel that has its original grain pattern enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

(b) "Natural gas processing plant" means a stationary source where the extraction of natural gas liquids from field gas or the fractionation of the liquids into natural gas products, such as ethane, propane, butane, and natural gasoline, takes place.

(c) "Natural gas process unit" means process equipment assembled for the extraction of natural gas liquids from field gas, the fractionation of the liquids into natural gas products, or other operations associated with the processing of natural gas products. A natural gas process unit may operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the products.

(d) "Nearby" means, with respect to good engineering practice design stack heights, a distance of up to 5 times the lesser of the height or the width dimension of a structure, but not more than 0.8 kilometers (0.5 miles). The height of the structure is measured from the ground level elevation at the base of the stack.

(e) "Nonattainment area" means an area designated as not having attained full compliance with any national ambient air quality standard pursuant to section 107(D) of the clean air act. Such designation shall be air contaminant specific and shall not mean that an area is a nonattainment area for any other air contaminant unless so specified. The department shall maintain a list of designated nonattainment areas and shall update the list when air quality monitoring or modeling data warrant. For certain air contaminants, nonattainment areas are classified for the purposes of applying an attainment date, or for other purposes, in accordance with procedures established pursuant to the clean air act, as amended, 42 U.S.C. §7401 et seq. For ozone nonattainment areas, classifications have been established as follows:

- (i) Nonclassifiable.
- (ii) Marginal.
- (iii) Moderate.
- (iv) Serious.
- (v) Severe.
- (vi) Extreme.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1989 MR 4, Eff. Apr. 20, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1993 MR 11, Eff. Nov. 18, 1993; 2003 MR 12, Eff. July 1, 2003; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1115 Definitions; O.

Rule 115. As used in these rules:

(a) "**Opacity**" means the degree to which an emission reduces the transmission of light or obscures an observer's view.

(b) "**Open burning**" means a fire from which the products of combustion are emitted directly into the outer air without passing through a stack or chimney.

(c) **"Open top vapor degreaser"** means a tank that contains organic solvent which is heated to its boiling point for the purpose of cleaning or degreasing metallic objects through the condensation of the hot solvent vapor on the colder object.

(d) **"Oral reference dose"** or **"RfD"** means a conservative estimate of the daily exposure to the human population, including sensitive subgroups, that is likely to be without appreciable risk of deleterious effect during a lifetime. The reference dose is expressed in units of milligrams per kilogram of body weight per day.

(e) **"Organic compound"** means any compound of carbon or mixture of such compounds, excluding all of the following:

- (i) Carbon monoxide.
- (ii) Carbon dioxide.
- (iii) Carbonic acid.
- (iv) Metallic carbides or carbonates.
- (v) Boron carbide.
- (vi) Silicon carbide.
- (vii) Ammonium carbonate.
- (viii) Ammonium bicarbonate.
- (ix) Methane.
- (x) Ethane.

(f) **"Organic compound-water separator"** means any vessel, device, or piece of equipment which is operated for the recovery of organic compounds from waste water and which, in any 1 day, recovers more than 200 gallons of organic compounds from any equipment that processes, refines, stores, or handles such compounds with a Reid vapor pressure of more than 0.5 psia.

(g) **"Organic resin"** means a solid or semisolid, water insoluble, organic material as listed in standard industrial classification code 2821. The resin has little or no tendency to crystallize and is used as the basic component of plastics or as a component of surface coating formulations.

(h) **"Organic solvent"** means any volatile organic compound that is used as a diluent, thinner, dissolver, viscosity reducer, or cleaning agent or for other similar uses.

(i) **"Outer air"** means air in all space outside of buildings, stacks, or exterior ducts.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992.

R 336.1116 Definitions; P.

Rule 116. As used in these rules:

(a) **"Packaging rotogravure printing"** means rotogravure printing upon a substrate that, in subsequent operations, is formed into a packaging product or label, or both.

(b) **"Paint manufacturing"** means the grinding or mixing of a combination of pigments, resins, and liquids to produce a surface coating as listed in standard industrial classification code 2851.

(c) **"Particulate matter"** means any air contaminant existing as a finely divided liquid or solid, other than uncombined water, as measured by a reference test specified in R 336.2004(5) or by an equivalent or alternative method.

(d) **"Perchloroethylene dry cleaning equipment"** means equipment utilized in the cleaning of fabrics for which perchloroethylene (tetrachloroethylene) is the predominant cleaning medium.

(e) **"Performance test"** means the taking of a source sample at a stationary source, employing department-approved methods, to determine either of the following:

(i) Compliance with the department's rules, orders, or emission limitations.

(ii) Compliance with the conditions of a permit to install or permit to operate.

(f) **"Permit to install"** means a permit issued by the department authorizing the construction, installation, relocation, or alteration of any process, fuel-burning, refuse-burning, or control equipment in accordance with approved plans and specifications.

(g) **"Permit to operate"** means a permit issued by the department authorizing the use of any process, fuel-burning, refuse-burning, or control equipment for the period indicated after it has been demonstrated that it can be operated in compliance with these rules. The requirement to obtain a permit to operate was removed from these rules effective July 26, 1995. Permits to operate issued before that date remain in effect and legally enforceable unless they are voided pursuant to R 336.1201(6).

(h) **"Person"** means any of the following:

(i) An individual person.

(ii) Trustee.

(iii) Court-appointed representative.

(iv) Syndicate.

(v) Association.

(vi) Partnership.

(vii) Firm.

(viii) Club.

(ix) Company.

(x) Corporation.

(xi) Business trust.

(xii) Institution.

(xiii) Agency.

(xiv) Government corporation.

(xv) Municipal corporation.

(xvi) City.

(xvii) County.

(xviii) Municipality.

(xix) District.

(xx) Other political subdivision, department, bureau, agency, or instrumentality of federal, state, or local government.

(xxi) Other entity recognized by law as the subject of rights and duties.

(i) "**Petroleum**" means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal gasification or liquefaction.

(j) "**Petroleum refinery**" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking, or the reforming of unfinished petroleum derivatives.

(k) "**PM-10**" means particulate matter that has an aerodynamic diameter less than or equal to a nominal 10 micrometers, as measured by a reference test specified in 40 C.F.R. part 51, appendix M.

(l) "**Potential emissions**" means those emissions expected to occur without control equipment, unless this control equipment is, aside from air pollution control requirements, vital to production of the normal product of the source or to its normal operation. Annual potential emissions shall be based on the maximum annual-rated capacity of the source, unless the source is subject to enforceable permit conditions or enforceable orders that limit the operating rate or the hours of operation, or both. Enforceable agreements or permit conditions on the type or amount of materials combusted or processed shall be used in determining the potential emission rate of a source.

(m) "**Potential to emit**" means the maximum capacity of a stationary source to emit an air contaminant under its physical and operational design. Any physical or operational limit on the capacity of the stationary source to emit an air contaminant, including air pollution control equipment and restrictions on the hours of operation or the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limit, or the effect it would have on emissions, is legally enforceable. Secondary emissions shall not count in determining the "potential to emit" of a stationary source. For hazardous air pollutants that have been listed pursuant to section 112(b) of the clean air act, quantifiable fugitive emissions shall be included in determining the potential to emit of any stationary source. For all other air contaminants, quantifiable fugitive emissions shall be included in determining the "potential to emit" of a stationary source only if the stationary source belongs to 1 of the following categories:

(i) Coal cleaning plants that have thermal dryers.

(ii) Kraft pulp mills.

- (iii) Portland cement plants.
- (iv) Primary zinc smelters.
- (v) Iron and steel mills.
- (vi) Primary aluminum ore reduction plants.
- (vii) Primary copper smelters.
- (viii) Municipal incinerators capable of charging more than 50 tons of refuse per day.
- (ix) Hydrofluoric, sulfuric, or nitric acid plants.
- (x) Petroleum refineries.
- (xi) Lime plants.
- (xii) Phosphate rock processing plants.
- (xiii) Coke oven batteries.
- (xiv) Sulfur recovery plants.
- (xv) Carbon black plants that have a furnace process.
- (xvi) Primary lead smelters.
- (xvii) Fuel conversion plants.
- (xviii) Sintering plants.
- (xix) Secondary metal production plants.
- (xx) Chemical process plants.
- (xxi) Fossil fuel boilers (or combination thereof) totaling more than 250,000,000 Btu per hour heat input.
- (xxii) Petroleum storage and transfer units that have a total storage capacity of more than 300,000 barrels or petroleum storage vessels that have a capacity of more than 40,000 gallons.
- (xxiii) Taconite ore processing plants.
- (xxiv) Glass-fiber processing plants.
- (xxv) Charcoal production plants.
- (xxvi) Fossil fuel-fired steam electric plants of more than 250,000,000 Btu per hour heat input.
- (xxvii) Asphalt concrete plants.
- (xxviii) Secondary lead smelters and refineries.
- (xxix) Sewage treatment plants.
- (xxx) Phosphate fertilizer plants.
- (xxxi) Ferroalloy production plants.

(xxxii) Grain elevators.

(xxxiii) Stationary gas turbines.

(xxxiv) Stationary sources that are subject to the federal national emission standards for hazardous air pollutants for the following materials:

(A) Asbestos.

(B) Beryllium.

(C) Mercury.

(D) Vinyl chloride.

(n) "**PPM**" means parts per million, by volume.

(o) "**Printed interior panel**" means a panel which has its grain or natural surface obscured by fillers and basecoats and upon which a simulated grain or decorative pattern is printed.

(p) "**Process**" means an action, operation, or a series of actions or operations at a source that emits or has the potential to emit an air contaminant. Examples of a "process" include any of the following:

(i) A physical change of a material.

(ii) A chemical change of a material.

(iii) The combustion of fuel, refuse, or waste material.

(iv) The storage of a material.

(v) The handling of a material.

(q) "**Process equipment**" means all equipment, devices, and auxiliary components, including air pollution control equipment, stacks, and other emission points, used in a process.

(r) "**Process unit turnaround**" means the scheduled shutdown of a refinery process unit for the purpose of inspection or maintenance of the unit.

(s) "**Production equipment exhaust system**" means a device for collecting and removing, from the immediate area, fugitive air contaminants from any process equipment.

(t) "**Psia**" means pounds per square inch absolute.

(u) "**Publication rotogravure printing**" means rotogravure printing upon a substrate that is subsequently formed into any of the following:

(i) Book.

(ii) Magazine.

(iii) Catalogue.

(iv) Brochure.

(v) Directory.

- (vi) Newspaper.
- (vii) Supplement.
- (viii) Other type of printed material.

(v) "**Pushing operation**," with respect to coke ovens, means the movement of the coke from a coke oven into the coke-receiving car.

(w) "**Pushside**," with respect to a coke oven, means that side of the coke oven that is adjacent to the pushing machine.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1985 MR 2, Eff. Feb. 22, 1985; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992; 1993 MR 4, Eff. Apr. 28, 1993; 1993 MR 11, Eff. Nov. 18, 1993; 1995 MR 7, Eff. July 26, 1995; 1996 MR 11, Eff. Dec. 12, 1996; 2003 MR 12, Eff. July 1, 2003.

R 336.1118 Definitions; R.

Rule 118. As used in these rules:

(a) "**Reactor**" means a vessel which may be jacketed to permit temperature control and which is designed to contain materials during chemical reaction.

(b) "**Reconstruction**" means the replacement of components of an existing facility so that the fixed capital cost of the new components is more than 50% of the fixed capital cost that would be required to construct a comparable entirely new emission unit and so that it is technologically and economically feasible to meet the applicable requirement.

"Fixed capital cost," as used in this subdivision, means the capital needed to provide all of the depreciable components.

(c) "**Red coating**" means a coating which meets all of the following criteria:

- (i) Yellow limit: the hue of hostaperm scarlet.
- (ii) Blue limit: the hue of monastral red-violet.
- (iii) Lightness limit for metallics: 35% aluminum flake.
- (iv) Lightness limit for solids: 50% titanium dioxide white.
- (v) Solid reds: hue angle of -11 to 38 degrees and maximum lightness of 23 to 45 units.
- (vi) Metallic reds: hue angle of -16 to 35 degrees and maximum lightness of 28 to 45 units.

These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specular included, the upper limit is 49 units. The maximum lightness varies as the hue moves from violet to orange. This is a natural consequence of the strength of the colorants, and real colors show this effect.

(d) "**Reference test method**," with respect to source sampling, means a method or set of procedures, as described in appendix A to these rules, for obtaining source samples.

(e) **"Refinery unit"** means a set of components and other equipment which are a part of a basic process operation, such as distillation, hydrotreating, cracking, or reforming of hydrocarbons.

(f) **"Reid vapor pressure"** means the absolute vapor pressure of an organic compound at 100 degrees Fahrenheit as measured by the standard test method set forth in ASTM D-323 or approved equivalent. [ASTM D-323](#) is adopted by reference in these rules. A copy may be inspected at the Lansing office of the air quality division of the department of environmental quality. A copy may be obtained from the Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of these rules of \$30.00. A copy may also be obtained from the [American Society for Testing and Materials](#), 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428-2959, at a cost as of the time of adoption of these rules of \$30.00.

(g) **"Repetitive production of a product"** means production, for purposes other than clinical testing of pharmaceuticals, which meets the following criteria:

(i) Batch processes or process equipment producing 10 or more batches of product.

(ii) Continuous processes or process equipment running for a period of more than 10 times the length of time for the raw materials to become finished product or 24 hours, whichever is longer.

(h) **"Research and development activities"** means activities conducted for the primary purpose of developing new production processes and products, testing more efficient production processes, or testing methods for preventing or reducing adverse environmental impacts, if the activities are in compliance with both of the following provisions:

(i) The activities do not include the production of an intermediate or final product for sale or exchange for commercial profit, except in a de minimis manner.

(ii) The activities are conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel.

(i) **"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.

(j) **"Responsible official"** means, for the purposes of signing and certifying the truth, accuracy, and completeness of permit applications, monitoring and other reports, and compliance certifications, any of the following:

(i) For a corporation, a president, secretary, treasurer, or vice-president of the corporation who is in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation. The person identified in the preceding sentence may appoint another person as his or her authorized representative under either of the following circumstances:

(A) The representative is responsible for the overall operation of 1 or more manufacturing, production, or operating facilities applying for or subject to a permit and either the facilities employ more than 250 persons or have gross annual sales or expenditures of more than \$25,000,000.00.

(B) The representative has responsibilities for the overall operation of a source and is approved in advance by the department. A responsible official shall submit a written request for approval from the department to designate an authorized representative pursuant to this paragraph. The department shall respond, in writing, within 30 days of receipt of the request.

(ii) For a partnership or sole proprietorship, a general partner or the proprietor.

(iii) For a county, city, village, township, state, federal, or other public agency, either a principal executive officer or ranking elected official. For this purpose, a principal executive officer includes the chief executive officer who has responsibility for the overall operations of a principal geographic unit of the agency.

(iv) For affected sources under title IV of the clean air act, the designated representative as defined in title IV of the clean air act.

(k) **"Rotogravure printing"** means the application of words, designs, pictures, or surface coating to a substrate by means of a roll printing technique that involves intaglio or recessed image areas in the form of cells.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1992 MR 4, Eff. Apr. 17, 1992; 1995 MR 7, Eff. July 26, 1995; 1996 MR 11, Eff. Dec. 12, 1996; 1997 MR 5, Eff. June 15, 1997; 2002 MR 10, Eff. May 28, 2002; 2003 MR 12, Eff. July 1, 2003.

R 336.1119 Definitions; S.

Rule 119. As used in these rules:

(a) **"Schedule of compliance"** means, for purposes of R 336.1201 to R 336.1218, all of the following:

(i) For a source not in compliance with all applicable requirements at the time of issuance of a renewable operating permit, a schedule of remedial measures, including an enforceable sequence of actions or operations that specifies milestones, leading to compliance with an applicable requirement, and a schedule for submission of certified progress reports, at least every 6 months. The schedule shall resemble, and be at least as stringent as, a schedule contained in a judicial consent decree or administrative order to which the source is subject. A schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirement on which it is based.

(ii) For a source in compliance with all applicable requirements at the time of issuance of a renewable operating permit, a statement that the source will continue to comply with the requirements.

(iii) With respect to any applicable requirement that has a future effective compliance date that is after the date of issuance and before the date of expiration of the renewable operating permit, the schedule of compliance shall contain a statement that the source will meet the requirement on a timely basis, unless the underlying applicable requirement requires a more detailed schedule.

(b) **"Secondary emissions"** means emissions which occur as a result of the construction or operation of a stationary source, but which do not come from the stationary source itself. Secondary emissions include only emissions that are specific, well-defined, quantifiable, and impact the same general area as the stationary source which causes the secondary emissions. Secondary emissions also include emissions from any off-site support facility which would not otherwise be constructed or increase its emissions except as a result of the construction or operation of the stationary source. Examples of secondary emissions include the following:

(i) Emissions from ships or trains coming to or going from a stationary source.

(ii) Emissions from any off-site support facility that would not otherwise be constructed or increase its emissions except as a result of the construction or operation of the stationary source.

(c) **"Secondary risk screening level"** means the concentration of a possible, probable, or known human carcinogen in ambient air which has been calculated, for regulatory purposes, according to the risk assessment procedures in R 336.1229(1), to produce an estimated upper-bound lifetime cancer risk of 1 in 100,000.

(d) **"Shutdown"** means the cessation of operation of a source for any purpose.

(e) **"Significant"** means a rate of emissions for the following air contaminants which would equal or exceed any of the following:

(i) Carbon monoxide - 100 tons per year.

(ii) Nitrogen oxides - 40 tons per year.

(iii) Sulfur dioxide - 40 tons per year.

(iv) Particulate matter - 25 tons per year.

(v) PM-10 - 15 tons per year.

(vi) Volatile organic compounds - 40 tons per year.

(vii) Lead - 0.6 tons per year.

(f) **"Smoke"** means small gas and airborne particles consisting essentially of carbonaceous material in sufficient numbers to be observable.

(g) **"Sour condensate"** means a condensate that emits sour gas at atmospheric pressure.

(h) **"Sour crude"** means a crude oil that emits sour gas at atmospheric pressure.

(i) **"Sour gas"** means any gas containing more than 1 grain of hydrogen sulfide or more than 10 grains of total sulfur per 100 standard cubic feet.

(j) **"Source sample"** means any raw material, fuel, product, by-product, waste material, exhaust gas, air contaminant, flora, soil, or other such material existing as a gas, liquid, or solid, which is captured, retained, or collected from a stationary source.

(k) **"Specific plate collection area"** means the ratio of the total collection area to the total gas volume flow rate in square feet per 1,000 actual cubic feet per minute.

(l) **"Stack"** or **"chimney"** means a flue, conduit, or duct arranged to conduct a gas stream to the outer air.

(m) **"Standard conditions"** means a gas temperature of 70 degrees Fahrenheit and a gas pressure of 29.92 inches of mercury absolute.

(n) **"Standpipe assembly,"** with respect to coke ovens, means the riser, standpipe lid, and the gooseneck.

(o) **"Standpipe assembly emission point,"** with respect to a coke oven battery equipped with a single collector main or a double collector main, means the flexible connection between the battery top and the base of the riser, the seating surface of the standpipe lid, and the second flexible connection wherever located, or another agreed upon connection that is located between the collector main and the gooseneck. With respect to a battery equipped with a charging main and a gas-offtake main in tandem, "standpipe assembly emission point" means the upper flange, the lower flange, the top lid, the bottom lid, the upper sand seal, the middle sand seal, and the lower base sand seal. With respect to a battery equipped with a jumper pipe ministandpipe, "standpipe assembly emission point" means the flexible connection between the battery top and the base of the riser, the seating surface of the standpipe lid, the flexible connection between the collector main and the gooseneck, the ministandpipe lid, and the flexible connection between the battery top and the jumper pipe ministandpipe.

(p) **"Start-up"** means the setting in operation of a process or process equipment for any purpose.

(q) **"State-only enforceable"** means that the limitation or condition is derived solely from the act and the air pollution control rules and is not federally enforceable. State-only enforceable requirements include R 336.1224, R 336.1225, R 336.1901, any permit requirement established solely pursuant to R 366.1201(1)(b), or any other regulation that is enforceable solely under the act and is not federally enforceable.

(r) **"Stationary source"** means all buildings, structures, facilities, or installations which emit or have the potential to emit 1 or more air contaminants, which are located at 1 or more contiguous or adjacent properties, which are under the control of the same person, and which have the same 2-digit major group code associated with their primary activity. In addition, a stationary source includes any other buildings, structures, facilities, or installations which emit or have the potential to emit 1 or more air contaminants, which are located at 1 or more contiguous or adjacent properties, which are under the control of the same person, and which have a different 2-digit major group code, but which support the primary activity. Buildings, structures, facilities, or installations, are considered to support the primary activity if 50% or more of their output is dedicated to the primary activity. Major group codes and primary activities are described in the standard industrial classification manual, 1987. Notwithstanding the provisions of this subdivision, research and development activities, as described in R 336.1118, may be treated as a separate stationary source, unless the research and development activities support the primary activity of the stationary source.

(s) "**Stationary vessel**" means any tank, reservoir, or container used for the storage of any volatile organic compound which is not used to transport such volatile organic compound and in which no manufacturing process or part thereof takes place.

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

(u) "**Styrene devolatilizer unit**" means equipment performing the function of separating unreacted styrene monomer and other volatile components from polystyrene in a vacuum devolatilizer.

(v) "**Styrene recovery unit**" means equipment performing the function of separating styrene monomer from other less volatile components of the styrene devolatilizer unit's output. The separated styrene monomer may be reused as raw material in the manufacturing of polystyrene resin.

(w) "**Submerged fill pipe**" means any fill pipe that has its discharge opening entirely submerged when the liquid level is 6 inches above the bottom of the vessel or, when applied to a vessel that is loaded from the side, means either of the following:

(i) Any fill pipe that has its discharge opening entirely submerged when the liquid level is 18 inches above the bottom of the vessel.

(ii) Any fill pipe that has its discharge opening entirely submerged when the liquid level is twice the diameter of the fill pipe above the bottom of the vessel, but in no case shall the top of such submerged fill pipe be more than 36 inches above the bottom of the vessel.

(x) "**Sufficient evidence**," a term of art, means either of the following:

(i) In human epidemiological studies, that the data indicate that there is a causal relationship between the agent and human cancer.

(ii) In animal studies, the data suggest that there is an increased incidence of malignant tumors or combined malignant and benign tumors in any of the following:

(A) Multiple species or strains.

(B) Multiple experiments.

(C) To an unusual degree in a single experiment with regard to high incidence, unusual site or type of tumor, or early age at onset.

(y) "**Sulfuric acid plant**" means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(z) "**Surface coating**" means any paint, lacquer, varnish, ink, adhesive, or other coating material applied on a surface.

(aa) "**Sweet condensate**" means any condensate that is not a sour condensate.

(bb) "**Sweet crude**" means any crude oil that is not a sour crude.

(cc) **"Sweetening facility"** means a facility or process that removes hydrogen sulfide or sulfur-containing compounds, or both, from a sour gas, sour crude oil, or sour condensate stream and converts it to sweet gas, sweet crude, or sweet condensate. The term "sweetening facility" does not include a facility or process that operates in an enclosed system and does not emit hydrogen sulfide to the outer air.

(dd) **"Sweet gas"** means any gas that is not a sour gas.

(ee) **"Synthetic organic chemical and polymer manufacturing plant"** means a stationary source where the production, as intermediates or final products, of 1 or more of the following chemicals takes place:

(i) Methyl tert-butyl ether.

(ii) Polyethylene.

(iii) Polypropylene.

(iv) Polystyrene.

(v) Synthetic organic chemicals listed in section 489 of 40 C.F.R. part 60, subpart VV, entitled "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry," which is adopted by reference in R 336.1628(1).

(ff) **"Synthetic organic chemical and polymer manufacturing process unit"** means all process equipment assembled to manufacture, as intermediates or final products, 1 or more of the chemicals listed in the definition of synthetic organic chemical and polymer manufacturing plant. A synthetic organic chemical and polymer manufacturing process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1985 MR 2, Eff. Feb. 22, 1985; 1989 MR 4, Eff. Apr. 19, 1989; 1990 MR 10, Eff. Nov. 14, 1990; 1992 MR 4, Eff. Apr. 17, 1992; 1993 MR 11, Eff. Nov. 18, 1993; 1995 MR 7, Eff. July 26, 1995; 1996 MR 11, Eff. Dec. 12, 1996; 2003 MR 12, Eff. July 1, 2003.

R 336.1120 Definitions; T.

Rule 120. As used in these rules:

(a) **"Temporary source"** means a stationary source, process, or process equipment that commences operation and is located at a geographic site for not more than 12 consecutive months.

(b) **"Texture coat"** means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

(c) **"Thin particleboard"** means a manufactured board which is 1/4 of an inch or less in thickness and which is made of individual wood particles that have been coated with a binder and formed into flat sheets by pressure.

(d) **"Thinning tank,"** as it pertains to R 336.1631, means any vessel which receives resin from a reactor and to which solvents or other materials are added to thin the resin.

(e) **"Tileboard"** means paneling that has a colored, waterproof surface coating.

(f) **"Toxic air contaminant"** or **"TAC"** means any air contaminant for which there is no national ambient air quality standard and which is or may become harmful to public health or the environment when present in the outdoor atmosphere in sufficient quantities and duration. For the purpose of this definition, all of the following substances shall not be considered to be toxic air contaminants:

- (i) Acetylene.
- (ii) Aluminum metal dust.
- (iii) Aluminum oxide (nonfibrous forms).
- (iv) Ammonium sulfate.
- (v) Argon.
- (vi) Calcium carbonate.
- (vii) Calcium hydroxide.
- (viii) Calcium oxide.
- (ix) Calcium silicate.
- (x) Calcium sulfate.
- (xi) Carbon dioxide.
- (xii) Carbon monoxide.
- (xiii) Cellulose.
- (xiv) Coal dust.
- (xv) Crystalline silica emissions from any of the following processes:
 - (A) Extraction and processing of all metallic or non-metallic minerals.
 - (B) Sand production, processing, and drying.
 - (C) Asphalt production.
 - (D) Concrete production.
 - (E) Glass and fiberglass manufacturing.
 - (F) Foundries.
 - (G) Foundry residual recovery activities.
 - (H) Any other process if the crystalline silica emissions are less than 10% of the total PM-10 emissions.
- (xvi) Emery.
- (xvii) Ethane.
- (xviii) Graphite (synthetic).
- (xix) Grain dust.
- (xx) Helium.
- (xxi) Hydrogen.

- (xxii) Iron oxide.
- (xxiii) Lead.
- (xxiv) Liquefied petroleum gas (l.p.g.).
- (xxv) Methane.
- (xxvi) Neon.
- (xxvii) Nitrogen.
- (xxviii) Nitrogen oxides.
- (xxix) Nuisance particulates.
- (xxx) Oxygen.
- (xxxi) Ozone.
- (xxxii) Perlite.
- (xxxiii) Portland cement.
- (xxxiv) Propane.
- (xxxv) Silicon.
- (xxxvi) Starch.
- (xxxvii) Sucrose.
- (xxxviii) Sulfur dioxide.
- (xxxix) Vegetable oil mist.
- (xl) Water vapor.
- (xli) Zinc metal dust.

(g) **"Toxicological interaction"** means the simultaneous exposure to 2 or more hazardous substances which will produce a toxicological response that is greater or less than their individual responses.

(h) **"Transfer efficiency"** means the percentage of coating solids material that leaves the coating applicator and remains on the surface of the product.

(i) **"True vapor pressure"** means the equilibrium partial pressure exerted by a liquid or the sum of partial pressures exerted by a mixture of liquids. For refined petroleum stock (gasolines and naphthas) and crude oil, the "true vapor pressure" may be determined in accordance with methods described in American petroleum institute bulletin MPMS C19 S2, ["Manual of Petroleum Measurement Standards, Chapter 19, Evaporative Loss Measurements, Section 2, Evaporative Loss From Floating-Roof Tanks,"](#) 1997. American petroleum institute bulletin MPMS C19 S2 is adopted in these rules by reference. A copy may be inspected at the Lansing office of the air quality division of the department of environmental quality. A copy may be obtained from the Department of Environmental Quality, Air Quality Division, P.O. Box 30260, Lansing, Michigan 48909-7760, at a cost as of the time of adoption of these rules of \$116.00. A copy may also be obtained from the

[Global Engineering Documents](#), HIS Company, 15 Inverness Way East, Englewood, Colorado 80112, at a cost as of the time of adoption of these rules of \$116.00.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1989 MR 4, Eff. Apr. 20, 1989; 1992 MR 4, Eff. Apr. 17, 1992; 1995 MR 7, Eff. July 26, 1995; 1996 MR 11, Eff. Dec. 12, 1996; 1999 MR 10, Eff. Oct. 28, 1999; 2002 MR 10, Eff. May 28, 2002.

R 336.1121 Definitions; U.

Rule 121. As used in these rules:

(a) **"Uncontrolled emissions"** means those emissions expected to occur without control equipment, unless such control equipment is, aside from air pollution control requirements, vital to production of the normal product of the process or to its normal operation. Annual uncontrolled emissions shall be based upon the maximum annually rated capacity of the process or process equipment, unless the process or process equipment is subject to legally enforceable permit conditions or orders which limit the operating rate or the hours of operation, or both. Legally enforceable permit conditions or orders on the type or amount of materials combusted or processed shall be used in determining the uncontrolled emissions rate of a process or process equipment.

(b) **"Unsafe-to-monitor component"** means a component which, if monitored, would expose monitoring personnel to immediate danger. This definition includes, during the period of November 1 through March 31, a component which is located outside a building and which can only be monitored by elevating the monitoring personnel more than 6 feet above ground level.

History: 1979 ACS 7, Eff. Aug. 22, 1981; 1989 MR 4, Eff. Apr. 19, 1989; 1989 MR 4, Eff. Apr. 20, 1989.

R 336.1122 Definitions; V.

Rule 122. As used in these rules:

(a) **"Vacuum-metalizing coatings"** means topcoats and basecoats that are used in the vacuum-metalizing process.

(b) **"Vacuum-producing system"** means any device that creates a pressure below atmospheric, such as a pump or steam ejector with condenser, including hot wells and accumulators.

(c) **"Vapor collection system,"** as it pertains to R 336.1627, means all piping, seals, hoses, connections, pressure-vacuum vents, and any other equipment between and including the delivery vessel and a stationary vessel, vapor processing unit, or vapor holder.

(d) **"Very large precipitator"** means an electrostatic precipitator that has a specific plate collection area of 600 square feet or more per 1,000 actual cubic feet per minute gas flow.

(e) **"Visible emission"** means any emissions that are visually detectable without the aid of instruments.

(f) "Volatile organic compound" means any compound of carbon or mixture of compounds of carbon that participates in photochemical reactions, excluding the following materials, all of which have been determined by the United States environmental protection agency to have negligible photochemical reactivity:

- (i) Carbon monoxide.
- (ii) Carbon dioxide.
- (iii) Carbonic acid.
- (iv) Metallic carbides or carbonates.
- (v) Boron carbide.
- (vi) Silicon carbide.
- (vii) Ammonium carbonate.
- (viii) Ammonium bicarbonate.
- (ix) Methane.
- (x) Ethane.

(xi) The methyl chloroform portion of commercial grades of methyl chloroform, if all of the following provisions are complied with:

(A) The commercial grade of methyl chloroform is used only in a surface coating or coating line that is subject to the requirements of part 6 or 7 of these rules.

(B) The commercial grade of methyl chloroform contains no stabilizers other than those listed in table 11.

(C) Compliance with the applicable limits specified in part 6 or 7 of these rules is otherwise not technically or economically reasonable.

(D) All measures to reduce the levels of all organic solvents, including the commercial grade of methyl chloroform, from the surface coating or coating line to the lowest reasonable level will be implemented.

(E) The emissions of the commercial grade of methyl chloroform do not result in a maximum ambient air concentration exceeding any of the allowable ambient air concentrations listed in table 11.

(F) The use of the commercial grade of methyl chloroform is specifically identified and allowed by a permit to install, permit to operate, or order of the department.

(G) Table 11 reads as follows:

TABLE 11

Commercial grade of methyl chloroform --
allowable ambient air concentrations

| Compound | Ppm ¹ | Time ² |
|--------------------------------------|-------------------------|----------------------|
| Methyl chloroform | 3.5 | 1 hour |
| Tertiary butyl alcohol ³ | 1.0 | 1 hour |
| Secondary butyl alcohol ³ | 1.0 | 1 hour |
| Methylal ³ | 10.0 | 1 hour |
| 1,2-butylene oxide ³ | 0.028 and 0.00041 | 1 hour annual |

1. Parts per million, by volume
2. Averaging time period
3. This compound is a stabilizer

(xii) The methyl chloroform portion of commercial grades of methyl chloroform that contain any other stabilizer not listed in table 11 of this rule, if all of the following provisions are complied with:

(A) The commercial grade of methyl chloroform is used only in a surface coating or coating line that is subject to the requirements of part 6 or 7 of these rules.

(B) Compliance with the applicable limits specified in part 6 or 7 of these rules is otherwise not technically or economically reasonable.

(C) All measures to reduce the levels of all organic solvents, including the commercial grade of methyl chloroform, from the surface coating or coating line to the lowest reasonable level will be implemented.

(D) The emissions of any compound in the commercial grade of methyl chloroform that is listed in table 11 of this rule do not result in a maximum ambient air concentration exceeding any of the allowable ambient air concentrations listed in table 11.

(E) The emission of all compounds in the commercial grade of methyl chloroform that are not listed in table 11 is demonstrated to comply with R 336.1901.

(F) The use of the commercial grade of methyl chloroform is specifically identified and allowed by a permit to install, permit to operate, or order of the department.

(xiii) Acetone.

(xiv) Cyclic, branched, or linear completely methylated siloxanes.

(xv) Parachlorobenzotrifluoride.

(xvi) Perchloroethylene.

(xvii) Trichlorofluoromethane (CFC-11).

- (xviii) Dichlorodifluoromethane (CFC-12).
- (xix) 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113).
- (xx) 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114).
- (xxi) Chloropentafluoroethane (CFC-115).
- (xxii) 1,1-dichloro 1-fluoroethane (HCFC-141b).
- (xxiii) 1,1-chloro 1,1-difluoroethane (HCFC-142b).
- (xxiv) Chlorodifluoromethane (HCFC-22).
- (xxv) 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123).
- (xxvi) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124).
- (xxvii) Trifluoromethane (HFC-23).
- (xxviii) Pentafluoroethane (HFC-125).
- (xxix) 1,1,2,2-tetrafluoroethane (HFC-134).
- (xxx) 1,1,1,2-tetrafluoroethane (HFC-134a).
- (xxxii) 1,1,1-trifluoroethane (HFC-143a).
- (xxxiii) 1,1-difluoroethane (HFC-152a).
- (xxxiiii) 3,3-dichloro-1, 1,1,2,2-pentafluoropropane (HCFC-225ca).
- (xxxv) 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb).
- (xxxvi) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee).
- (xxxvii) Difluoromethane (HFC-32).
- (xxxviii) Ethyl fluoride (HFC-161).
- (xxxix) 1,1,1,3,3,3-hexafluoropropane (HFC-236fa).
- (xl) 1,1,2,2,3-pentafluoropropane (HFC-245ca).
- (xli) 1,1,2,3,3- pentafluoropropane (HFC-245ea).
- (xlii) 1,1,1,2,3- pentafluoropropane (HFC-245eb).
- (xliii) 1,1,1,3,3- pentafluoropropane (HFC-245fa).
- (xliv) 1,1,1,2,3,3-hexafluoropropane (HFC-236ea).
- (xlv) 1,1,1,3,3-pentafluorobutane (HFC365mfc).
- (xlvi) Chlorofluoromethane (HCFC-31).
- (xlvii) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a).
- (xlviii) 1-chlor-1-fluoroethane (HCFC-151a).
- (xlix) 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C₄F₉OCH₃ or HFE-7100).
- (l) 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane.

- (l) 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅ or HFE-7200).
- (li) 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane.
- (lii) Methyl acetate.
- (liii) Perfluorocarbon compounds that fall into the following classes:
 - (A) Cyclic, branched, or linear, completely fluorinated alkanes.
 - (B) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations.
 - (C) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations.
 - (D) Sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.
- (liv) Methylene chloride.
- (lv) 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-C₃F₇OCH₃, HFE-7000).
- (lvi) 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500).
- (lvii) 1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea).
- (lviii) Methyl formate (HCOOCH₃).
- (lix) T-butyl acetate is not a volatile organic compound for purposes of volatile organic compound emissions limitations or volatile organic compound content requirements but is a volatile organic compound for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements, which apply to volatile organic compounds and shall be uniquely identified in emission reports.

The methods described in R 336.2004 and R 336.2040 shall be used for measuring volatile organic compounds for purposes of determining compliance with emission limits. Where such a method also measures compounds with negligible photochemical reactivity, these negligibly-photochemical reactive compounds may be excluded as volatile organic compounds if the amount of such compounds is accurately quantified and such exclusion is approved by the department.

History: 1979 ACS 1, Eff. Jan. 19, 1980; 1985 MR 2, Eff. Feb. 22, 1985; 1988 MR 5, Eff. May 20, 1988; 1989 MR 4, Eff. Apr. 19, 1989; 1993 MR 4, Eff. Apr. 28, 1993; 1997 MR 5, Eff. June 15, 1997; 2000 MR 18, Eff. November 30, 2000; 2003 MR 5, Eff. March 13, 2003; 2008 MR 6, Eff. Mar. 28, 2008.

R 336.1123 Definitions; W.

Rule 123. As used in these rules:

- (a) **"Waxy, heavy pour crude oil"** means any of the following:

(i) A crude oil with a pour point of 30 degrees Fahrenheit or higher as determined by the standard test method set forth in ASTM-D97-66, entitled "Test Method for Pour Point of Petroleum Oils."

(ii) A crude oil containing more than 2.5% N-paraffin content (C-17 to C-40).

(iii) A crude oil with a viscosity of more than 500 seconds universal sayboldt (SUS) at 20 degrees Fahrenheit.

(b) **"Wayne county permit"** means a permit or a certificate of operation issued pursuant to the wayne county air pollution control ordinance adopted pursuant to the home rule charter for wayne county, resolution no. 85-305, as amended by resolution no. 89-213.

(c) **"Weight of evidence,"** a term of art, means a description of the likelihood that a chemical is a human carcinogen based on evaluation of tumor data from human or animal studies and examination of relevant supporting information, including any of the following information:

(i) Structure-activity relationships.

(ii) Short-term test findings.

(iii) Results of appropriate physiological, biological, and toxicological observations.

(iv) Comparative metabolism and pharmacokinetic studies.

History: 1979 ACS 7, Eff. Aug. 22, 1981; 1992 MR 4, Eff. Apr. 17, 1992; 1995 MR 7, Eff. July 26, 1995.

R 336.1127 Terms defined in the act.

Rule 127. Terms defined in the act have the same meaning when used in these rules.

History: 1979 ACS 1, Eff. Jan. 19, 1980.

R 336.1128 Rescission.

Rule 128. R 336.11 to R 336.79, R 336.101 to R 336.116, and R 336.141 to R 336.147 of the Michigan Administrative Code, appearing on pages 4191 to 4200 of the 1967 Annual Supplement to the Code, pages 6147 to 6149 of the 1972 Annual Supplement to the Code, pages 6654 to 6657 and 6660 to 6662 of the 1973 Annual Supplement to the Code, pages 7249 to 7252 of the 1974 Annual Supplement to the Code, pages 7924 and 7925 of the 1975 Annual Supplement to the Code, and pages 76 to 79 of Quarterly Supplement No. 94 to the Code, are rescinded.

History: 1979 ACS 1, Eff. Jan. 19, 1980.