

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION

HAZARDOUS WASTE MANAGEMENT

(By authority conferred on the director and the department of environmental quality by sections 11115a, 11115b, 11118, 11123, 11127, 11128, 11130, 11132a, 11137, 11138, 11140, 11141, and 11153 of 1994 PA 451, and Executive Reorganization Order No. 1995-16, MCL 324.11115a, 324.11115b, 324.11118, 324.11123, 324.11127, 324.11128, 324.11130, 324.11132a, 324.11137, 324.11138, 324.11140, 324.11141, 324.11153, and 324.99903)

PART 1. GENERAL PROVISIONS

R 299.9101 Definitions; A, B.

Rule 101. As used in these rules:

(a) "Aboveground tank" means a device which meets the definition of "tank" in this part and which is situated in such a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface bottom and can be visually inspected.

(b) "Act" means 1994 PA 451, MCL 324.101, and known as the natural resources and environmental protection act.

(c) "Act 138" means 1998 PA 138, MCL 29.471 to 29.480, and known as the hazardous materials transportation act.

(d) "Act 181" means 1963 PA 181, MCL 480.14, and known as the motor carrier safety act.

(e) "Act 207" means 1941 PA 207, MCL 29.1, and known as the fire prevention code.

(f) "Act 218" means sections 3101 and 3102 of 1956 PA 218, MCL 500.3101 and 500.3102, and known as the insurance code of 1956.

(g) "Act 236" means 1961 PA 236, MCL 600.101, and known as the revised judicature act.

(h) "Act 300" means 1949 PA 300, MCL 257.1, and known as the Michigan vehicle code.

(i) "Act 306" means 1969 PA 306, MCL 24.201, and known as the administrative procedures act of 1969.

(j) "Act 368" means 1978 PA 368, MCL 333.1101, and known as the public health code.

(k) "Act 399" means 1976 PA 399, MCL 325.1001, and known as the safe drinking water act.

(l) "Active life" means the period from the initial receipt of hazardous waste at a facility until the director receives certification of final closure.

(m) "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being, or have been, conducted after November 19, 1980, and which is not a closed portion.(See also "closed portion" and "inactive portion")

(n) "Active range" means a military range that is currently in service and being regularly used for range activities.

(o) "Administrator" means the administrator of the EPA or the administrator's designee.

(p) "Agent," when used in conjunction with the term United States importer, means an employee of the United States importer or a legally recognized representative of the United States importer who has been authorized in a lawfully executed written document, such as a power of attorney, to act on the United States importer's behalf.

(q) "Agreement state" means a state that has entered into an agreement with the NRC under subsection 274b of the atomic energy act of 1954, as amended, to assume responsibility for

regulating within its borders byproduct, source, or special nuclear material in quantities not sufficient to form a critical mass.

(r) "Ampule" means an airtight vial made of glass, plastic, metal, or any combination of these materials.

(s) "Ancillary equipment" means any device, including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to storage or treatment tanks, between hazardous waste storage and treatment tanks to a point of disposal on site, or to a point of shipment for disposal off site.

(t) "Antifreeze" means a mixture containing ethylene glycol or propylene glycol for use as a heat transfer or dehydration fluid for the purposes of regulation as a universal waste under R 299.9228.

(u) "Aquifer" means a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of groundwater to wells or springs.

(v) "Associated organic chemical manufacturing facility" means a facility that meets all of the following requirements:

(i) The primary SIC code at the facility is 2869 but operations may also include SIC codes 2821, 2822, and 2865.

(ii) The facility is physically co-located with a petroleum refinery.

(iii) The petroleum refinery to which the oil that is being recycled is returned also provides hydrocarbon feedstocks to the facility.

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

(x) "Authorized representative" means the person who is responsible for the overall operation of a facility or an operational unit, such as the plant manager, superintendent, or person who has equivalent responsibilities.

(y) "Battery" means a device which consists of 1 or more electrically connected electrochemical cells and which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system that consists of an anode, a cathode, an electrolyte, and any such connections that are needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(z) "Boiler" means an enclosed device which uses controlled flame combustion and which is either determined by the director to be a boiler based on the standards and procedures set forth in 40 C.F.R. §§260.32 and 260.33, which are adopted by reference in R 299.11003, or which is in compliance with all of the following characteristics:

(i) The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases.

(ii) The unit's combustion chamber and primary energy recovery section or sections shall be of an integral design. To be of an integral design, the combustion chamber and the primary energy recovery section or sections, such as waterwalls and superheaters, shall be physically formed into 1 manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section or sections are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment, such as economizers or air preheaters, need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of an integral design:

(A) Process heaters or units that transfer energy directly to a process stream.

(B) Fluidized bed combustion units.

(iii) While in operation, the unit shall maintain a thermal energy recovery efficiency of not less than 60% calculated in terms of the recovered energy compared with the thermal value of the fuel.

(iv) The unit shall export and utilize not less than 75% of the recovered energy calculated on an annual basis. In this calculation, credit shall not be given for recovered heat that is used internally in the same unit, such as for the preheating of fuel or combustion air and for the driving of induced or forced draft fans or feedwater pumps.

(aa) "Burner" means an owner or operator of a facility that burns either used oil fuel or hazardous waste fuel.

(bb) "By-product" means a material which is not one of the primary products of a production process and which is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a coproduct which is produced for the general public's use and which is ordinarily used in the form in which it is produced by the process.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9102 Definitions; C, D.

Rule 102. As used in these rules:

(a) "Carbon regeneration unit" means an enclosed thermal treatment device used to regenerate spent activated carbon.

(b) "Cathode ray tube" or "CRT" means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT is a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

(c) "CERCLA" means the comprehensive environmental response compensation and liability act of 1980, as amended, 42 U.S.C. §9601 et seq.

(d) "Certification" means a statement of professional opinion based upon knowledge or belief.

(e) "Certified delivery" means certified mail with return receipt requested, or equivalent courier service or other means, that provides the sender with a receipt confirming delivery.

(f) "C.F.R." means the Code of Federal Regulations.

(g) "Chemical agents and munitions" means chemical agents and munitions as defined in 50 U.S.C. section 1521(j)(1).

(h) "Closed portion" means the portion of a facility that an owner or operator has closed pursuant to the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion.")

(i) "Combustion zone" means the portion of the internal capacity of an incinerator where the gas temperatures of the materials being burned are within 100 degrees Celsius of the specified operating temperature.

(j) "Commingling" means the transfer of hazardous wastes between containers or vehicles by a transporter during the course of transportation that results in the waste being mixed or repackaged.

(k) "Component" means either the tank or the ancillary equipment of a tank system.

(l) "Confined aquifer" means an aquifer that is bounded above and below by impermeable beds or by beds that have a distinctly lower permeability than that of the aquifer itself. It is an aquifer that contains confined groundwater.

(m) "Consignee" means the ultimate treatment, storage, or disposal facility in a receiving country to which the hazardous waste will be sent.

(n) "Consolidation" means the transfer of containers of hazardous wastes between transport vehicles by a transporter during the course of transportation without the containers holding the wastes being opened and without the wastes being repackaged.

(o) "Constituent" or "hazardous waste constituent" means a constituent that caused the administrator to list the hazardous waste in 40 C.F.R. part 261, subpart D, a constituent that is listed in table I of 40 C.F.R. §261.24, or a constituent that is listed in table 201, 202, or 205 of these rules.

(p) "Construction permit" means a permit which is issued pursuant to part 111 of the act and which is for the construction of a treatment, storage, or disposal facility.

(q) "Consumer electronics" means devices containing an electronic circuit board, liquid crystal display, or plasma display such as those commonly found in homes and offices and these devices when used in other settings.

(r) "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

(s) "Contingency plan" means a document that sets out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

(t) "Corrective action management unit" or "CAMU" means an area within a facility that is used only for managing remediation waste, in the case of grandfathered corrective action management units, or corrective action management unit-eligible waste, as further explained in R 299.9635(2) and (3), in implementing corrective action or cleanup at the facility.

(u) "Corrective action management unit-eligible waste" or "CAMU-eligible waste" means all wastes and hazardous wastes and all media, including groundwater, surface water, soils, sediments, and debris, that are managed for implementing cleanup. As-generated wastes from ongoing industrial operations at a site are not CAMU-eligible. Notwithstanding this subrule and where appropriate, as-generated non-hazardous waste may be placed in a corrective action management unit if the waste is being used to facilitate treatment or the performance of the corrective action management unit. Wastes that would otherwise meet the definition of a CAMU-eligible waste are not CAMU-eligible wastes if either of the following apply:

(i) If the wastes are hazardous wastes found during a cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of the cleanup, or the containers or tanks are excavated during the course of the cleanup.

(ii) If the director, or the director's designee, uses the authority in R 299.9635 to prohibit the wastes from management in a corrective action management unit.

(v) "Corrosion expert" means a person who, by reason of his or her knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. The person shall be certified as being qualified by the national association of corrosion engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

(w) "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

(x) "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

(y) "CRT processing" means conducting all of the following activities:

(i) Receiving broken or intact CRTs.

(ii) Intentionally breaking intact CRTs or further breaking or separating broken CRTs.

(iii) Sorting or otherwise managing glass removed from CRT monitors.

(z) "Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received a permit or has interim status pursuant to 40 C.F.R. parts 124 and 270; which has a license, permit, or interim status from a state that is authorized pursuant to section 3006 of title II of the solid waste disposal act, which, if located in Michigan, has an operating license that is issued pursuant to part 111 of the act, has a legally binding agreement with the director that authorizes operation, or is subject to the requirements of section 23(4) and (5) of part 111 of the act; or which is regulated pursuant to R 299.9206(1)(c) or R 299.9803; and which has been designated on the manifest by the generator pursuant to R 299.9304. If the waste is destined for a facility in an authorized state that has not yet obtained authorization to regulate the particular waste as hazardous, then the designated facility shall be a facility that is allowed by the receiving state to accept the waste. A designated facility may also mean a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with R 299.9608.

(aa) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except for the management activities described in 40 C.F.R. §§273.13(a) and (c) and 273.33(a) and (c). A facility at which a particular category of universal waste is only accumulated is not a destination facility for purposes of managing that category of universal waste.

(bb) "Dike" means an embankment or ridge which consists of either natural or man-made materials and which is used to prevent the movement of liquids, sludges, solids, or other materials.

(cc) "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

(dd) "Director" means the director of the department of environmental quality.

(ee) "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

(ff) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on land or water in such manner that the hazardous waste or a constituent of the hazardous waste might enter the environment, be emitted into the air, or discharged into water, including groundwater.

(gg) "Disposal facility" means a facility or a part of a facility at which hazardous waste, as defined by these rules, is intentionally placed into or on any land or water and at which hazardous waste will remain after closure. The term "disposal facility" does not include a corrective action management unit into which remediation wastes are placed.

(hh) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(ii) "DOD" means the United States department of defense.

(jj) "DOT" means the United States department of transportation.

(kk) "Do-it-yourselfer used oil collection center" means any site or facility that accepts or aggregates and stores used oil collected only from household do-it-yourselfers.

(ll) "Drip pad" means an engineered structure which consists of a curbed, free-draining base, which is constructed of nonearthen materials, and which is designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

Rule 103. As used in these rules:

(a) "Electric lamp" means the bulb or tube portion of a lighting device specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common electric lamps include incandescent, fluorescent, high intensity discharge, sodium vapor, mercury vapor, and neon lamps.

(b) "Element" means any part of a unit or any group of parts of a unit that are assembled to perform a specific function, for example, a pump seal, pump, kiln liner, or kiln thermocouple.

(c) "Elementary neutralization unit" means a device that is in compliance with both of the following requirements:

(i) Is used for neutralizing wastes that are hazardous wastes only because they exhibit the corrosivity characteristic defined in R 299.9212 or are listed in R 299.9213 or R 299.9214 only because they exhibit the corrosivity characteristic.

(ii) Is in compliance with the definition of "tank," "tank system," "container," "transport vehicle," or "vessel" as specified in this part.

(d) "Eligible NARM waste" means NARM waste that is eligible for the transportation and disposal conditional exemption outlined in R 299.9823 of the rules. It is a NARM waste that contains hazardous waste, meets the waste acceptance criteria of, and is allowed by state NARM regulations to be disposed of at a low-level radioactive waste disposal facility licensed pursuant to 10 C.F.R. part 61 or NRC agreement state equivalent regulations.

(e) "Enforceable document" means an order, a plan, or other document issued by the department either in place of an operating license for the postclosure period, or as a source of alternative requirements for hazardous waste management units, as provided under these rules. An enforceable document may include, but is not limited to, a corrective action order under part 111 of the act, a CERCLA remedy, or a closure or postclosure plan. An enforceable document shall be issued under an authority that has available all of the following remedies:

(i) The authority to sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of the requirements of these documents.

(ii) The authority to compel compliance with the requirements for corrective action or other emergency response measures deemed necessary to protect human health and the environment.

(iii) The authority to access or sue to recover in court civil penalties, including fines, for violations of the requirements of these documents.

(f) "EPA" means the United States environmental protection agency.

(g) "EPA acknowledgment of consent" means the cable that is sent to EPA from the United States embassy in a receiving country which acknowledges the written consent of the receiving country to accept the hazardous waste and which describes the terms and conditions of the receiving country's consent to the shipment.

(h) "EPA region" means the states and territories found in any of the 10 EPA regions identified in 40 C.F.R. §260.10.

(i) "Equivalent method" means any testing or analytical method that is approved by the director pursuant to R 299.9215.

(j) "Excluded scrap metal" means processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(k) "Exempted radioactive waste" means a waste that meets the eligibility criteria and all of the conditions in R 299.9822, or meets the eligibility criteria and complies with all of the conditions in R 299.9823. Such waste is conditionally exempted from the regulatory definition of hazardous waste in R 299.9203.

(l) "Existing facility" means a treatment, storage, or disposal facility that either received all necessary state-issued environmental construction or operating permits before January 1, 1980, or for which approval of construction has been received from the air pollution control commission before November 19, 1980. Existing facilities also include those treatment,

storage, or disposal facilities which were operating before January 1, 1980, under existing authority and which did not require state-issued environmental construction or operating permits.

(m) "Existing portion" means the land surface area of an existing waste management unit previously authorized and included in the original part A permit application to the EPA on which wastes have been placed before the issuance of a permit pursuant to RCRA or an operating license pursuant to these rules, whichever is sooner.

(n) "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced, on or before July 14, 1986. Installation shall be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either of the following provisions applies:

(i) A continuous on-site physical construction or installation program has begun.

(ii) The owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction of the site of installation of the tank system to be completed within a reasonable time.

(o) "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance, damaged or deteriorated explosives or munitions, an improvised explosive device, other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. Such situations may require immediate and expeditious action by an explosives or munitions emergency specialist to control, mitigate, or eliminate the threat.

(p) "Explosives or munitions emergency response" means all immediate response activities by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures, treatment or destruction of the explosives or munitions or transporting those items to another location to be rendered safe, treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance shall not terminate the explosives or munitions emergency. Explosives and munitions emergency responses may occur on either public or private lands and are not limited to responses at RCRA facilities.

(q) "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include DOD emergency explosive ordnance disposal, technical escort unit, and DOD-certified civilian or contractor personnel; and other federal, state, or local government or civilian personnel similarly trained in explosives or munitions emergency responses.

(r) "Facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units, such as 1 or more landfills or surface impoundments, or combinations of operational units. For the purpose of implementing corrective action under part 111 of the act, "facility" shall include all contiguous property under the control of the owner or operator. Notwithstanding the definition of the term "facility" as it relates to corrective action, a remediation waste management site is not a facility that is subject to corrective action under R 299.9629, but is subject to the corrective action requirements of part 111 of the act and these rules if the site is located within such a facility.

(s) "Facility mailing list" means the mailing list for a facility that is maintained by the department pursuant to 40 C.F.R. §124.10I(1)(ix).

(t) "Fault" means a fracture along which rocks on 1 side have been displaced with respect to rocks on the other side.

(u) "Federal agency" means any department, agency, or other instrumentality of the federal government; any independent agency or establishment of the federal government, including any government corporation; and the United States government printing office.

(v) "Federal clean air act" means Public Law 95-95, 42 U.S.C. §1857 et seq.

(w) "Federal clean water act" means Public Law 92-500, 33 U.S.C. §1251 et seq.

(x) "Federal hazardous materials transportation act" means Public Law 93-633, 49 U.S.C. §1801 et seq.

(y) "Federal insecticide, fungicide, and rodenticide act" means 7 U.S.C. §§136 to 136y.

(z) "Federal resource conservation and recovery act" means Public Law 94-580, 42 U.S.C. §6901 et seq.

(aa) "Federal safe drinking water act" means Public Law 95-190, 42 U.S.C. §300f et seq.

(bb) "Final closure" means the closure of all hazardous waste management units at the facility pursuant to all applicable closure requirements so that hazardous waste management activities pursuant to parts 5 and 6 of these rules are no longer conducted at the facility, unless the activities are subject to R 299.9306.

(cc) "Flood" means a flood that has a 1% chance of being equalled or exceeded in any given year.

(dd) "Floodplain" means any land area that is subject to a 1% or greater chance of flooding in any given year from any source.

(ee) "Food chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(ff) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained in the tank or surface impoundment dike.

(gg) "Free liquids" means liquids that readily separate from the solid portion of a waste at ambient temperature and pressure.

(hh) "Fugitive emissions" means air contaminant emissions that emanate from non-point emission sources or sources other than stacks, ducts, or vents.

(ii) "Functionally equivalent element" means an element which performs the same function or measurement and which meets or exceeds the performance specifications of another element.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS.

R 299.9104 Definitions; G to I.

Rule 104. As used in these rules:

(a) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in part 2 of these rules or whose act first causes a hazardous waste to become subject to regulation.

(b) "Geologist" means a person who, by reason of his or her knowledge of geology, mathematics, and the physical and life sciences, acquired by education and experience, is equipped to practice geology.

(c) "Groundwater" means water below the land surface in a zone of saturation.

(d) "Hazardous waste" means a hazardous waste as defined in R 299.9203.

(e) "Hazardous waste fuel" means hazardous waste burned for energy recovery in any boiler or industrial furnace that is not regulated as an incinerator or fuel produced from hazardous waste for this purpose by processing, blending, or other treatment.

(f) "Hazardous waste management unit" means a contiguous area of land on or in which hazardous waste is placed or is the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include all of the following:

(i) A surface impoundment.

(ii) A waste pile.

(iii) A land treatment area.

(iv) A landfill cell.

(v) An incinerator.

(vi) A tank and its associated piping and underlying containment system.

(vii) A container storage area. A container alone does not constitute a unit. The unit includes containers and the land or pad upon which they are placed.

(viii) A miscellaneous unit.

(g) "Hazardous waste number" means the code number that is used to identify a particular type of hazardous waste.

(h) "Holocene" means the most recent epoch of the quaternary period extending from the end of the Pleistocene to the present.

(i) "Home scrap metal" means scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(j) "Household do-it-yourselfer used oil" means oil that is derived from households, such as used oil generated by individuals through the maintenance of their personal vehicles.

(k) "Household do-it-yourselfer used oil generator" means an individual who generates household do-it-yourselfer used oil.

(l) "Import" means the act of bringing hazardous waste into the United States from a foreign country.

(m) "Inactive portion" means that portion of a facility that is not operated after November 19, 1980. (See also "active portion" and "closed portion.")

(n) "Inactive range" means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

(o) "Incinerator" means an enclosed device that satisfies either of the following criteria:

(i) Uses controlled flame combustion, does not meet the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, and is not listed as an industrial furnace.

(ii) Meets the definition of an infrared incinerator or plasma arc incinerator.

(p) "Incompatible waste" means a hazardous waste that is unsuitable for either of the following:

(i) Placement in a particular device or facility because it may cause the corrosion or decay of containment materials, for example, container inner liners or tank walls.

(ii) Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure; fire or explosion; a violent reaction; toxic dusts, mists, fumes, or gases; or flammable fumes or gases. Examples of incompatible wastes are described in the provisions of 40 C.F.R. part 264, appendix V, and part 265, appendix V.

(q) "Individual generation site" means the contiguous site at or on which 1 or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have 1 or more sources of hazardous waste, but is considered a single or individual generation site if the site or property is contiguous.

(r) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish the recovery of materials or energy:

- (i) Cement kilns.
- (ii) Lime kilns.
- (iii) Aggregate kilns.
- (iv) Phosphate kilns.
- (v) Coke ovens.
- (vi) Blast furnaces.
- (vii) Smelting, melting, and refining furnaces, including pyrometallurgical devices, such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces.
- (viii) Titanium dioxide chloride process oxidation reactors.
- (ix) Methane reforming furnaces.
- (x) Pulping liquor recovery furnaces.
- (xi) Combustion devices that are used in the recovery of sulfur values from spent sulfuric acid.
- (xii) Halogen acid furnaces for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as a fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated.
- (xiii) Other devices that the administrator may, after notice and comment, add to this subdivision on the basis of 1 or more of the following factors:
 - (A) The design and use of the device primarily to accomplish the recovery of material products.
 - (B) The use of the device to burn or reduce raw materials to make a material product.
 - (C) The use of the device to burn or reduce secondary materials as effective substitutes for raw materials in processes using raw materials as principal feedstocks.
 - (D) The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product.
 - (E) The use of the device in common industrial practice to produce a material product.
 - (F) Other factors, as appropriate.
- (s) "Infrared incinerator" means any enclosed device which uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.
- (t) "In-ground tank" means a device which satisfies the definition of "tank" specified in R 299.9108(a) and which has a portion of its wall situated, to any degree, within the ground, thereby preventing visual inspection of the external surface area of the device that is in the ground.
- (u) "Injection well" means a well into which fluids are injected. (See also "underground injection.")
- (v) "Inner liner" means a continuous layer of material which is placed inside a tank or container and which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.
- (w) "In operation" means that a facility is treating, storing, or disposing of hazardous waste.
- (x) "Installation inspector" means a person who, by reason of his or her knowledge of the physical sciences and the principles of engineering acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.
- (y) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2008 AACS.

R 299.9105 Definitions; L to N.

Rule 105. As used in these rules:

(a) "Land disposal" means placement in or on the land and includes, but is not limited to, placement in any of the following:

- (i) A landfill.
- (ii) A surface impoundment.
- (iii) A waste pile.
- (iv) An injection well.
- (v) A land treatment facility.
- (vi) A salt dome formation.
- (vii) A salt bed formation.
- (viii) An underground mine or cave.

(ix) A concrete vault or bunker intended for disposal purposes. The term also means placement in or on the land by means of open detonation and open burning where the residues continue to exhibit 1 or more of the characteristics of hazardous waste. The term "land disposal" does not include ocean disposal.

(b) "Land disposal restriction treatment standards" means the treatment standards under 40 C.F.R. part 268 that a hazardous waste shall meet.

(c) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land. The term does not include any of the following:

- (i) A pile.
- (ii) A land treatment facility.
- (iii) A surface impoundment.
- (iv) An underground injection well.
- (v) A salt dome formation.
- (vi) A salt bed formation.
- (vii) An underground mine or cave.
- (viii) A corrective action management unit.

(d) "Landfill cell" means a discrete volume of a hazardous waste landfill that uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(e) "Land treatment facility" means a treatment facility or part of a treatment facility at which hazardous waste is applied onto or incorporated into the soil surface. Such facilities are disposal facilities if the waste will remain after closure.

(f) "Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

(g) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. Such a system shall employ operational controls, such as daily visual inspections for releases into the secondary containment system or aboveground tanks, or consist of an interstitial monitoring device designed to continuously and automatically detect the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

(h) "Lift" means a layer of placed materials, including a layer of compacted clay in a landfill liner or cap, or a layer of waste in a landfill.

(i) "Liner" means a continuous layer of natural or man-made materials beneath or on the sides of a surface impoundment, landfill, or landfill cell that restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

(j) "Low-level mixed waste" or "LLMW" means a waste that contains both LLRW and hazardous waste.

(k) "Low-level radioactive waste" or "LLRW" means a radioactive waste which contains source, special nuclear, or byproduct materials, and which is not classified high-level radioactive

waste, transuranic waste, spent nuclear fuel, or byproduct materials as defined in section 11.e(2) of the atomic energy act of 1954, as amended.

(l) "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(m) "Manifest" means the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, which is originated and signed by the generator or offer or in accordance with the instructions in the appendix to 40 C.F.R. part 262 and the applicable requirements of parts 3, 4, and 6 of these rules.

(n) "Manifest tracking number" means the alphanumeric identification number which is preprinted in item 4 of the manifest by a registered source.

(o) "Method of treatment or disposal" means 1 of the major categories of treatment or disposal used for hazardous waste, including any of the following:

(i) Landfill.

(ii) Land treatment.

(iii) Thermal treatment.

(iv) Chemical treatment.

(v) Physical treatment.

(vi) Biological treatment.

(p) "Military" means the DOD, the armed services, coast guard, national guard, department of energy or other parties under contract or acting as agent for any of the parties, who handle military munitions.

(q) "Military munitions" means all ammunition products and components produced or used by or for the DOD or the United States armed services for national defense and security, including military munitions under the control of the DOD, the United States coast guard, the United States department of energy, and national guard personnel. The term military munitions includes any of the following: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunitions, small arms ammunitions, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolitions charges, and devices and components thereof. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components thereof. However, the term military munitions does include nonnuclear components of nuclear devices, managed under the department of energy's nuclear weapons program after all required sanitization operations under the atomic energy act of 1954, as amended, have been compiled.

(r) "Military range" means designated land and water areas set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

(s) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit that is removed to gain access to the deposit and is then used for reclamation of a surface mine.

(t) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of. The term does not include any of the following:

(i) A container.

(ii) A tank.

(iii) A surface impoundment.

(iv) A pile.

- (v) A land treatment unit.
- (vi) A landfill.
- (vii) An incinerator.
- (viii) A boiler.
- (ix) An industrial furnace.
- (x) An underground injection well with appropriate technical standards pursuant to 40 C.F.R. part 146.
- (xi) A unit that is eligible for a temporary operating license for research pursuant to R 299.9501.
- (xii) A corrective action management unit.
- (xiii) A staging pile.
- (u) "Movement" means that hazardous waste transported to a facility in an individual vehicle.
- (v) "Mixed waste" means a waste that contains both hazardous waste and source, special nuclear, or byproduct material subject to the atomic energy act of 1954, as amended.
- (w) "Naturally occurring and/or accelerator-produced radioactive material" or "NARM" means radioactive material that is regulated by a state under state law, or by the United States department of energy, as authorized by the atomic energy act of 1954, as amended, under department of energy orders, and meets either of the following requirements:
 - (i) Is radioactive material that is naturally occurring and is not source, special nuclear, or byproduct material as defined by the atomic energy act of 1954, as amended.
 - (ii) Is radioactive material that is produced by an accelerator.
- (x) "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and for which installation has commenced after July 14, 1986. For purposes of 40 C.F.R. §§264.193(g)(2) and 265.193(g)(2), a new tank system is one for which construction commences after July 14, 1986.
- (y) "NFPA" means the national fire protection association.
- (z) "NRC" means the United States nuclear regulatory commission.
- (aa) "NRC license" or "NRC agreement state license" means a license issued by the NRC, or NRC agreement state, to users that manage radionuclides regulated by the NRC, or NRC agreement states, under the authority of the atomic energy act of 1954, as amended.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9106 Definitions; O to Q.

Rule 106. As used in these rules:

- (a) "On-ground tank" means a device which satisfies the definition of "tank" in R 299.9108(a) and which is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.
- (b) "On-site" means on the same or geographically contiguous property which may be divided by a public or private right-of-way if the entrance and exit between the pieces of property are at a crossroads intersection and access is by crossing, rather than going along, the right-of-way. Noncontiguous pieces of property owned by the same person but connected by a right of way which the owner controls and to which the public does not have access is also considered on-site property.
- (c) "On-site treatment facility" means a facility which is for the treatment of hazardous waste in tanks or containers, which is located on the site of generation of the wastes, and which does not do either of the following:
 - (i) Include equipment for incineration.
 - (ii) Accept hazardous wastes from other generators.

(d) "Open burning" means the combustion of any material without any of the following characteristics:

(i) Control of combustion air to maintain adequate temperature for efficient combustion.

(ii) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion.

(iii) Control of the emission of the gaseous combustion products. (See also "incineration" and "thermal treatment.")

(e) "Operating license" means a license to operate a treatment, storage, or disposal facility pursuant to the authority of part 111 of the act.

(f) "Operator" means the person responsible for the overall operation of a facility.

(g) "Owner" means the person who owns a treatment, storage, or disposal facility, or part of such a facility, including the titleholder of the land on which the facility is located.

(h) "Partial closure" means the closure of a hazardous waste management unit pursuant to the applicable closure requirements of 40 C.F.R. part 265 and part 6 of these rules at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank, including its associated piping and underlying containment systems, a landfill cell, surface impoundment, waste pile, or other hazardous waste management units while other units of the same facility continue to operate.

(i) "Person" means any of the following entities:

(i) An individual.

(ii) A partnership.

(iii) The state.

(iv) A trust.

(v) A firm.

(vi) A joint stock company.

(vii) A federal agency.

(viii) A corporation, including a government corporation.

(ix) An association.

(x) A municipality.

(xi) A commission.

(xii) A political subdivision of a state.

(xiii) Any interstate body.

(xiv) Any other public body created by or pursuant to state law.

(j) "Personnel" or "facility personnel" means all persons who work at, or oversee the operations of, a hazardous waste facility and whose actions or failure to act might result in noncompliance with part 111 of the act or these rules.

(k) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that meets any of the following criteria:

(i) Is a new animal drug under section 201(w) of the federal food, drug, and cosmetic act of 1938, as amended, 21 U.S.C. §301 et seq.

(ii) Is an animal drug that has been determined by regulation of the secretary of health and human services not to be a new animal drug.

(iii) Is an animal feed under section 201(x) of the federal food, drug, and cosmetic act of 1938, as amended, 21 U.S.C. §301 et seq. that bears or contains any substances identified in paragraph (i) or (ii) of this subdivision.

(l) "Petrochemical recovered oil" means oil that has been reclaimed from secondary materials from normal organic chemical manufacturing processes and oil recovered from organic chemical manufacturing processes.

(m) "Petroleum refining facility" means an establishment that is primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants through

fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking, or other processes.

(n) "Pharmaceutical" means a drug intended for use in the diagnosis, cure, mitigation, treatment, therapy, or prevention of disease in humans or animals.

(o) "Pile" means any noncontainerized accumulation of solid, nonflowing hazardous waste that is used for treatment or storage.

(p) "Plasma arc incinerator" means any enclosed device which uses a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and which is not listed as an industrial furnace.

(q) "Point source" means any discernible, confined, and discrete conveyance, including any of the following from which pollutants are or might be discharged:

(i) A pipe.

(ii) A ditch.

(iii) A channel.

(iv) A tunnel.

(v) A conduit.

(vi) A well.

(vii) A discrete fissure.

(viii) A container.

(ix) Rolling stock.

(x) A concentrated animal feeding operation.

(xi) A vessel or other floating craft. This term does not include return flows from irrigated agriculture.

(r) "Primary exporter" means any person who is required to originate the manifest for a shipment of hazardous waste pursuant to R 299.9304, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export.

(s) "Primary monitoring parameter" means indicator parameters, for example, specific conductance, total organic carbon, or total organic halogen; hazardous waste constituents; or reaction products which provide a reliable indication of the presence of hazardous constituents in groundwater and which, when specified in a facility operating license, are subject to all of the requirements of 40 C.F.R. part 264, subpart F.

(t) "Processed scrap metal" means scrap metal which has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes, but is not limited to, scrap metal which has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type and fines, drosses, and related materials which have been agglomerated. Shredded circuit boards being sent for recycling are not considered processed scrap and are covered under the exclusion from the definition of waste for shredded circuit boards that are being recycled in R 299.9204.

(u) "Processing" means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Processing includes all of the following:

(i) Blending used oil with virgin petroleum products.

(ii) Blending used oils to meet fuel specifications.

(iii) Filtration.

(iv) Simple distillation.

(v) Chemical or physical separation.

(vi) Re-refining.

(v) "Prompt scrap metal" means scrap metal as generated by the metal working and fabrication industries. Prompt scrap metal, which is also known as "industrial" or "new" scrap metal, includes all of the following:

- (i) Turnings.
- (ii) Cuttings.
- (iii) Punchings.
- (iv) Borings.

(w) "Publicly owned treatment works", known as "POTW," means any device or system which is used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature and which is owned by a "state" or "municipality," as defined by section 502(4) of the federal clean water act. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(x) "Qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in groundwater hydrology and related fields as may be demonstrated by state registration, professional certifications, or completions of accredited university courses that enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9107 Definitions; R, S.

Rule 107. As used in these rules:

(a) "RCRA" means the solid waste disposal act, as amended by the resource conservation and recovery act of 1976, as amended, 42 U.S.C. §6901 et seq.

(b) "Reclamation" means either processing to recover a usable product or regeneration, such as in the recovery of lead values from spent batteries and the regeneration of spent solvents.

(c) "Recreational property" means all lands that are predominately intended to provide outdoor recreational activities under the control and operation of a governmental agency, such as outdoor parks, preserves, campgrounds, and wildlife refuges.

(d) "Recycle" means use, reuse, or reclamation. Material is "used" or "reused" if it is either of the following:

(i) Employed as an ingredient in an industrial process to make a product, unless distinct components of the material are recovered as separate end products, such as when metals are recovered from metal-containing secondary materials.

(ii) Employed in a particular function or application as an effective substitute for a commercial product, such as spent pickle liquor used as phosphorus precipitant and sludge conditioner in wastewater treatment.

(e) "Recyclable material" means hazardous waste that is recycled.

(f) "Re-refining distillation bottoms" means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

(g) "Regional administrator" means the regional administrator or his or her designee for the EPA region in which the facility is located.

(h) "Regulated unit" means a surface impoundment, waste pile, land treatment unit, or landfill that received hazardous waste after July 26, 1982.

(i) "Remedial action plan" or "RAP" means a special form of an operating license that a facility owner or operator may obtain instead of a construction permit or operating license issued pursuant to part 5 of these rules. The RAP shall authorize the treatment, storage, or disposal of hazardous remediation waste at a remediation waste management site.

(j) "Remediation waste" means all wastes and hazardous wastes, and all media, including groundwater, surface water, soils, and sediments, and debris, that are managed for implementing cleanup.

(k) "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under R 299.9629, but is subject to the corrective action requirements of part 111 of the act and these rules if the site is located in such a facility.

(l) "Representative sample" means a sample of a universe or whole that can be expected to exhibit the average properties of the universe or whole.

(m) "Retention time" means the minimum time hazardous waste is subjected continuously to a required combustion zone temperature in an incinerator.

(n) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(o) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(p) "Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

(q) "Scrap metal" means bits and pieces of metal parts, such as bars, turnings, rods, sheets, wire, or metal pieces, which may be combined together with bolts or by soldering, such as radiators, scrap automobiles, and railroad car boxes, and which, when worn or superfluous, may be recycled.

(r) "Secondary monitoring parameter" means ions such as calcium, sodium, magnesium, iron, chloride, sulfate, bicarbonate, and carbonate; waste constituents; reaction products; or other parameters which provide an indication of the presence of hazardous constituents in groundwater and which are not subject to the requirements of 40 C.F.R. part 264, subpart F.

(s) "Site identification number" means the number that is assigned by the EPA or the EPA's designee to each generator, transporter, and treatment, storage, or disposal facility. If a generator, transporter, or treatment, storage, or disposal facility manages wastes that are hazardous pursuant to these rules, but are not hazardous pursuant to RCRA, then "site identification number" shall mean an equivalent number that is assigned by the director.

(t) "Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant.

(u) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 BTU per pound of sludge treated on a wet-weight basis.

(v) "Small quantity generator" means a generator who generates less than 1,000 kilograms of hazardous waste in a calendar month.

(w) "Sole source aquifer" means an aquifer designated pursuant to section 1424(e) of the federal safe drinking water act.

(x) "Sorb" means to adsorb or absorb, or both.

(y) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(z) "Speculative accumulation" means accumulation before recycle. A material is not accumulated speculatively, however, if the person accumulating the material shows that both of the following requirements are met:

(i) That the material is potentially recyclable and has a feasible means of being recycled.

(ii) That during the calendar year commencing on January 1, the amount of material that is recycled or transferred to a different site for recycling equals not less than 75% by weight or

volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75% requirement is to be applied to each material of the same type that is recycled in the same way. Materials accumulating in units which would be exempt from regulation under R 299.9204 (3)(a) or which are already defined as wastes shall not be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling.

(aa) "Spent material" means any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(bb) "Staging pile" means an accumulation of solid, non-flowing remediation waste that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles shall be designated by the director pursuant to R 299.9638.

(cc) "State" means any of the following:

(i) The several states.

(ii) The District of Columbia.

(iii) The Commonwealth of Puerto Rico.

(iv) The Virgin Islands.

(v) Guam.

(vi) American Samoa.

(vii) The Commonwealth of the Northern Mariana Islands.

(dd) "Storage" means the holding of hazardous waste for a temporary period at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

(ee) "Sump" means any pit or reservoir which satisfies the definition of "tank" in R 299.9108(a) and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities. When used in conjunction with the regulation of a landfill, surface impoundment, and waste pile, a sump means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for later removal from the system.

(ff) "Surface impoundment" or "impoundment" means a treatment, storage, or disposal facility or part of a treatment, storage, or disposal facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds, and lagoons.

(gg) "Surface water" means a body of water whose top surface is exposed to the atmosphere and includes the Great Lakes, their connecting waters, all inland lakes and ponds, rivers and streams, impoundments, open drains, and other watercourses, except for drainage ways and ponds used solely for wastewater conveyance, treatment, or control.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9108 Definitions; T.

Rule 108. As used in these rules:

(a) "Tank" means a stationary device which is designed to contain an accumulation of hazardous waste and which is constructed primarily of nonearthen materials, such as wood, concrete, steel, or plastic, that provide structural support.

(b) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(c) "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin/furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(d) "Thermal treatment" means the treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. All of the following are examples of thermal treatment processes:

- (i) Incineration.
- (ii) Molten salt.
- (iii) Pyrolysis.
- (iv) Calcination.
- (v) Wet air oxidation.
- (vi) Microwave discharge.

(e) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element and includes mercury-containing ampules that have been removed from the temperature control devices in compliance with the requirements of 40 C.F.R. §§273.13(c)(2) or 273.33(c)(2).

(f) "Title II of the solid waste disposal act" means the sections of Public Law 89-272 specified in the act.

(g) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed and operated in a manner that prevents the release of any hazardous waste or any constituent of a hazardous waste into the environment during treatment. An example is a pipe in which waste acid is neutralized.

(h) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas, and other similar areas, where shipments of hazardous waste are held during the normal course of transportation.

(i) "Transportation" means the movement of hazardous waste by air, rail, highway, or water.

(j) "Transport vehicle" means a motor vehicle or railcar that is used for the transportation of cargo by any mode. Each cargo-carrying body, such as a trailer or railroad freight car, is a separate transport vehicle.

(k) "Transporter" means a person who is engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

(l) "Treatability study" means a study in which a hazardous waste is subjected to a treatment process to determine any of the following:

- (i) Whether the waste is amenable to the treatment process.
- (ii) What pretreatment, if any, is required.
- (iii) The optimal process conditions needed to achieve the desired treatment.
- (iv) The efficiency of a treatment process for a specific waste or wastes.

(v) The characteristics and volumes of residuals from a particular treatment process. Also included in this definition for the purposes of the exemptions specified in R 299.9204 (8), (9), and (10) are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies. A treatability study is not a means to commercially treat or dispose of hazardous waste.

(m) "Treatment" means any method, technique, or process, including neutralization, that is designed to change the physical, chemical, or biological character or composition of any hazardous waste to neutralize the waste, to recover energy or material resources from the waste, or to render the waste nonhazardous or less hazardous, safer to transport, store, or dispose of, amenable to recovery or storage, or reduced in volume. Treatment includes any activity in processing that is designed to change the physical form or chemical composition of hazardous waste to render it nonhazardous.

(n) "Treatment facility" means a facility or part of a facility at which hazardous waste, as defined by these rules, is subject to treatment.

(o) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(p) "Trial burn" means a test that is conducted pursuant to the requirements of a construction permit to determine if the design of an incinerator or other thermal treatment device is satisfactory.

(q) "Trial operation" means an incinerator test that is conducted pursuant to the requirements of an operating license to determine if the operation of the incinerator or other thermal treatment device is satisfactory.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS.

R 299.9109 Definitions; U to Z.

Rule 109. As used in these rules:

(a) "Underground injection" or "well injection" means the subsurface emplacement of fluids through a bored, drilled, or driven well or through a dug well where the depth of the dug well is greater than the largest surface dimension.

(b) "Underground tank" means a device which satisfies the definition of "tank" specified in R 299.9108(a) and which has its entire surface area below the surface of, and covered by, the ground.

(c) "Unexploded ordnance" means military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

(d) "Unfit for use tank system" means a tank system that has been determined, through an integrity assessment or other inspection, to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(e) "United States" means any of the following:

(i) The 50 states.

(ii) The District of Columbia.

(iii) The Commonwealth of Puerto Rico.

(iv) The United States Virgin Islands.

(v) Guam.

(vi) American Samoa.

(vii) The Commonwealth of the Northern Mariana Islands.

(f) "United States importer" means a person who has lawfully recognized resident status within the United States and who brings in, or arranges for the entry of, a shipment of hazardous waste into the United States from a foreign country. A United States importer may be any of the following persons:

(i) The person who is liable for primary payment of any United States customs duties on the hazardous waste.

(ii) An agent as defined in R 299.9101.

(iii) The treatment, storage, or disposal facility designated on the manifest.

(iv) The importer of record as designated on the United States customs entry documents.

(v) The transporter who carries the hazardous waste at the point of entry.

(vi) The consignee.

(g) "Universal waste" means any of the hazardous wastes that are identified in R 299.9228(1) and managed pursuant to the provisions of R 299.9228.

(h) "Universal waste handler" means a generator of universal waste or the owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to

another universal waste handler, a destination facility, or a foreign destination. The term universal waste handler does not include either of the following:

(i) A person who treats, disposes of, or recycles universal waste, except as provided for in 40 C.F.R. §273.13(a) or (c) or §273.33(a) or (c).

(ii) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(i) "Universal waste large quantity handler" means a universal waste handler who accumulates 5,000 kilograms or more total of universal waste at any time.

(j) "Universal waste small quantity handler" means a universal waste handler who does not accumulate 5,000 kilograms or more total of universal waste at any time.

(k) "Universal waste transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas, and other similar areas, where shipments of universal waste are held during the normal course of transportation for 10 days or less.

(l) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(m) "Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

(n) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer and includes lower aquifers that are hydraulically interconnected with the aquifer within the facility's property boundary.

(o) "U.S.C." means the United States Code.

(p) "Used oil" means any oil which has been refined from crude oil, or any synthetic oil, which has been used and which as a result of the use, is contaminated by physical or chemical impurities.

(q) "Used oil aboveground tank" means a tank which is used to store or process used oil and which is not an underground storage tank as defined in 40 C.F.R. §280.12.

(r) "Used oil aggregation point" means any site or facility that accepts, aggregates, and/or stores used oil that is collected only from other used oil generation sites owned or operated by the same owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of not more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(s) "Used oil burner" means a facility where off-specification used oil, as defined in R 299.9809(1)(f), is burned for energy recovery in the devices identified in R 299.9814.

(t) "Used oil collection center" means any site or facility that has provided written notification of used oil management activities to the department and that accepts or aggregates and stores used oil collected from either of the following:

(i) Used oil generators regulated pursuant to the provisions of R 299.9810 who transport used oil to the collection center in shipments of not more than 55 gallons under the provisions of 40 C.F.R. §279.24.

(ii) Household do-it-yourselfers.

(u) "Used oil existing tank" means a tank that is used for the storage or processing of used oil and that is in operation, or for which installation has commenced, on or before the effective date of the amendments to these rules that establish the state's used oil program under RCRA. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the tank and if either of the following provisions applies:

(i) A continuous on-site physical installation program has begun.

(ii) The owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for installation of the tank system to be completed within a reasonable time.

(v) "Used oil fuel" means any fuel that is produced from used oil through processing, blending, or other treatment.

(w) "Used oil fuel marketer" means any person who conducts either of the following activities:

(i) Directs a shipment of off-specification used oil from his or her facility to a used oil burner.

(ii) First claims that the used oil which is to be burned for energy recovery meets the used oil specifications set forth in R 299.9809(1)(f).

(x) "Used oil generator" means any person, by site, whose act or process produces used oil or whose act first causes the used oil to become subject to regulation.

(y) "Used oil new tank" means a tank that is used for the storage or processing of used oil and for which installation has commenced after the effective date of amendments to these rules that establish the state's used oil program under RCRA.

(z) "Used oil processor/re-refiner" means a facility that processes used oil.

(aa) "Used oil tank" means a stationary device which is designed to contain an accumulation of used oil and which is constructed primarily of nonferrous materials, such as wood, concrete, steel, or plastic, that provide structural support.

(bb) "Used oil transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas, and other areas, where shipments of used oil are held for more than 24 hours and not more than 35 days during the normal course of transportation or before an activity performed pursuant to the provisions of R 299.9813(1) or (2). Transfer facilities that store used oil for more than 35 days are subject to regulation under R 299.9813.

(cc) "Used oil transporter" means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation, but with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation but that are not designed to produce, or make more amenable for the production of, used oil derived products or used oil fuel.

(dd) "Vehicle" means each separate conveyance used in the transportation of hazardous waste that is one of the following:

(i) A railcar as defined in 49 C.F.R. §171.8.

(ii) A semitrailer, truck, or trailer as defined in Act 300.

(iii) A truck tractor as defined in Act 300, only if the hazardous waste is actually transported in the cab of the vehicle.

(ee) "Vessel" means a watercraft that is used or is capable of being used as a means of transportation on the water.

(ff) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(gg) "Waste" means material that is defined as waste in R 299.9202.

(hh) "Waste management area" means the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit and includes horizontal space taken up by any liner, dike, or other barrier that is designed to contain waste in a regulated unit. If the facility contains more than 1 regulated unit, then the waste management area is described by an imaginary line circumscribing the several regulated units.

(ii) "Wastewater treatment unit" means a device that satisfies all of the following requirements:

(i) Is part of a wastewater treatment facility that is subject to regulation pursuant to the provisions of either section 402 or section 307(b) of the federal clean water act.

(ii) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in R 299.9203, generates and accumulates a wastewater treatment sludge that is a hazardous

waste as defined in R 299.9203, or treats or stores a wastewater treatment sludge that is a hazardous waste as defined in R 299.9203.

(iii) Meets the definition of "tank" or "tank system" specified in R 299.9108.

(jj) "Water (bulk shipment)" means the bulk transportation of hazardous waste that is loaded or carried on board a vessel without containers or labels.

(kk) "Well" means any shaft or pit which is dug or bored into the earth, which is generally of a cylindrical form, and which is often walled with bricks or tubing to prevent the earth from caving in.

(ll) "Wetland" means the areas defined as wetlands in part 303 of the act.

(mm) "Zone of engineering control" means an area which is under the control of the owner or operator and which, upon detection of a hazardous waste release, can be readily cleaned up before the release of hazardous waste or hazardous constituents to groundwater or surface water.

History: 1985 AACCS; 1988 AACCS; 1994 AACCS; 1996 AACCS; 2000 AACCS; 2004 AACCS.

R 299.9199 Rescission.

Rule 199. R 299.6101 to R 299.7305 of the Michigan Administrative Code, appearing on pages 194 to 261 of the 1981 Annual Supplement to the 1979 Michigan Administrative Code, are rescinded.

History: 1985 AACCS.

PART 2. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

R 299.9201 Purpose and scope.

Rule 201. (1) This part identifies only some of the materials which are hazardous wastes under sections 46 and 48 of part 111 of the act. A material which is not a hazardous waste identified in this part is still a hazardous waste for purposes of those sections if, in the case of section 46 of part 111 of the act, the director has reason to believe that the material may be a hazardous waste within the meaning of section 3 of part 111 of the act, and, in the case of section 48 of part 111 of the act, the statutory elements are established.

(2) The explanation of waste contained in this part applies only to wastes that also are hazardous for purposes of the rules implementing part 111 of the act. For example, it does not apply to materials such as nonhazardous scrap, paper, textiles, and rubbers that are not otherwise hazardous wastes and are recycled.

History: 1985 AACCS; 1998 AACCS.

R 299.9202 "Waste" explained.

Rule 202. (1) A waste is any discarded material that is not excluded by R 299.9204 or that is not excluded by a variance granted under R 299.9202(6) and (7). A discarded material is any material that is any of the following:

(a) A material that is abandoned by being disposed of; burned or incinerated; or accumulated, stored, or treated before or instead of being abandoned by being disposed of, burned, or incinerated.

(b) A material which is recycled, or accumulated, stored, or treated before recycling, and which meets 1 of the following criteria:

(i) It is a material listed in subrule (2) of this rule and is used in a manner constituting disposal by being either of the following:

(A) Applied to or placed on the land in a manner that constitutes disposal.

(B) Used to produce products that are applied to or are placed on the land or are otherwise contained in products that are applied to or placed on the land, in which cases the product itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is applied to the land and that is its ordinary manner of use.

(ii) It is a material listed in subrule (2) of this rule and it is burned to recover energy, is used to produce a fuel, or is otherwise contained in fuels, in which cases the fuel itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is itself a fuel.

(iii) It is a material listed in subrule (2)(a), (b), or (c) of this rule and it undergoes reclamation, except as provided for in R 299.9204(1)(v).

(iv) It is a material listed in subrule (2)(a), (b), (c), or (d) of this rule and it undergoes speculative accumulation.

(v) It is an inherently waste-like material, having a hazardous waste number of F020, F021, F022, F023, F026, or F028, or is another waste determined by the administrator based on both of the following criteria:

(A) The materials are ordinarily disposed of, burned, or incinerated or the materials contain toxic constituents which are listed in 40 C.F.R. part 261, appendix VIII, and which are not ordinarily found in raw materials or products for which the materials substitute or are found in raw materials or products in smaller concentrations, and which are not used or reused during the recycling process.

(B) The material might pose a substantial hazard to human health and the environment when recycled.

(vi) It is an inherently waste-like material which is a secondary material, which is fed to a halogen acid furnace, and which exhibits a characteristic of a hazardous waste or is listed as a hazardous waste pursuant to part 2 of these rules, except for brominated material that meets all of the following criteria:

(A) The material contains a bromine concentration of not less than 45%.

(B) The material contains less than a total of 1% of the toxic organic compounds listed in 40 C.F.R. part 261, appendix VIII.

(C) The material is processed continually on-site in the halogen acid furnace by direct conveyance such as hard piping.

(c) It is a military munition identified as a waste under R 299.9817.

(2) Any of the following materials may be wastes under subrule (1) of this rule:

(a) Spent materials.

(b) Sludges and by-products listed in R 299.9220 to R 299.9223.

(c) Scrap metal other than excluded scrap metal.

(d) Sludges and by-products that exhibit a characteristic of hazardous waste.

(e) Commercial chemical products listed in R 299.9214.

(3) Except as provided in subrule (4) of these rules, materials are not wastes if they can be shown to be recycled by any of the following means:

(a) By being used or reused as ingredients in an industrial process to make a product if the materials are not being reclaimed.

(b) By being used or reused as effective substitutes for commercial products.

(c) By being returned to the original process from which they are generated without first being reclaimed or placed on the land. The material must be returned as a substitute for feedstock materials. If the original process to which the material is returned is a secondary process, then the materials must be managed so that they are not placed on the land. In cases where the materials

are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion under R 299.9204(1)(v) apply rather than this subrule.

(4) All of the following materials are wastes, even if the recycling involves use, reuse, or return to the original process described in subrule (3) of this rule:

(a) Materials used in a manner constituting disposal or used to produce products that are applied to the land.

(b) Materials burned for energy recovery, used to produce a fuel, or contained in fuels.

(c) Materials accumulated speculatively.

(d) Inherently waste-like materials listed in subrule (1)(b)(v) and (vi) of this rule.

(5) Respondents in actions to enforce regulations implementing part 111 of the act who raise a claim that a certain material is not waste or is conditionally exempt from regulation shall demonstrate that there is a known market or disposition for the material and that the respondent meets the terms of exclusion or exemption. In doing so, the respondent shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment for recycling the materials.

(6) The director may determine, on a case-by-case basis, that the following recycled materials are not wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled, as defined in R 299.9107.

(b) Materials that are reclaimed and then reused within the original production process in which they were generated.

(c) Materials that have been reclaimed, but must be reclaimed further before the materials are completely recovered.

(7) The director shall use the criteria and procedures outlined in 40 C.F.R. §§260.31 and 260.33 for making determinations under subrule (6) of this rule.

(8) The provisions of 40 C.F.R. §§260.31, 260.33, 261.31, 261.32, and 261.33 are adopted by reference in R 299.11003, with the exception that the word "director" shall replace the word "regional administrator."

History: 1985 AACS; 1988 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9203 "Hazardous waste" explained.

Rule 203. (1) A waste, as explained in R 299.9202, is a hazardous waste if it is not excluded from regulation pursuant to R 299.9204(1) or (2) and if it meets any of the following criteria:

(a) It exhibits any of the characteristics of hazardous waste identified in R 299.9212.

(b) It is listed in R 299.9213 or R 299.9214 and has not been excluded from the lists pursuant to R 299.9211.

(c) It is a mixture of a waste and 1 or more hazardous wastes that are listed in R 299.9213 or R 299.9214 and has not been excluded from this subdivision pursuant to R 299.9211 or subrules (7) or (8) of this rule; however, mixtures of wastes and hazardous wastes that are listed in R 299.9213 and R 299.9214 are not hazardous wastes, except by application of subdivision (a) or (b) of this subrule, if the generator can demonstrate that the mixture consists of wastewater which, with respect to discharge, is subject to regulation pursuant to either section 402 or section 307(b) of the federal clean water act, including wastewater at facilities that have eliminated the discharge of wastewater, and is 1 of the following:

(i) One or more of the following spent solvents that are listed in R 299.9213, if the maximum total weekly usage of the solvents, other than the amounts that can be demonstrated not to be

discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system is not more than 1 part per million or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under parts 60, 61, or 63 of the federal clean air act or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, is not more than 1 part per million on an average weekly basis:

- (A) Carbon tetrachloride.
- (B) Tetrachloroethylene.
- (C) Trichloroethylene.
- (D) Benzene.

(E) Scrubber waters derived from the combustion of the spent solvents listed in subparagraphs (A) to (D) of this paragraph. Any facility that uses benzene as a solvent and claims this exemption shall use an aerated biological wastewater treatment system and only lined surface impoundments or tanks before secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if the director finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, the director shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(ii) One or more of the following spent solvents that are listed in R 299.9213, if the maximum total weekly usage of the solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system is not more than 25 parts per million or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under parts 60, 61, or 63 of the federal clean air act or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, is not more than 25 parts per million on an average weekly basis:

- (A) Methylene chloride.
- (B) 1,1,1-Trichloroethane.
- (C) Chlorobenzene.
- (D) o-dichlorobenzene.
- (E) Cresols.
- (F) Cresylic acid.
- (G) Nitrobenzene.
- (H) Toluene.
- (I) Methyl ethyl ketone.
- (J) Carbon disulfide.
- (K) Isobutanol.
- (L) Pyridine.
- (M) Spent chlorofluorocarbon solvents.
- (N) 2-ethoxyethanol.

(O) Scrubber waters derived from the combustion of the spent solvents listed in subparagraphs (A) to (N) of this paragraph. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if the director finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, the director shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(iii) One or more of the following wastes that are listed in R 299.9213 if the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation.

(A) Heat exchanger bundle cleaning sludge from the petroleum refining industry, K050.

(B) Crude oil storage tank sediment from petroleum refining operations, K169.

(C) Clarified slurry oil tank sediment or in-line filter/separation solids from petroleum refining operations, K170.

(D) Spent hydrotreating catalyst, K171.

(E) Spent hydrorefining catalyst, K172.

(iv) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in R 299.9213 or R 299.9214, arising from de minimis losses of the materials from manufacturing operations in which the materials are used as raw materials or are produced in the manufacturing process. For the purpose of this paragraph, de minimis losses are inadvertent releases to a wastewater treatment system, including any of the following:

(A) Losses from normal material handling operations, such as spills from the unloading or transfer of materials from bins or other containers or leaks from pipes, valves, or other devices that are used to transfer materials.

(B) Minor leaks of process equipment, storage tanks, or containers.

(C) Leaks from well-maintained pump packings and seals.

(D) Sample purgings.

(E) Relief device discharges.

(F) Discharges from safety showers and the rinsing and cleaning of personal safety equipment.

(G) Rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in R 299.9214, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in R 299.9213 or R 299.9214 shall either have eliminated the discharge of wastewaters or have included in its federal clean water act permit application or submission to its pretreatment control authority the constituents for which each waste was listed in accordance with 40 C.F.R. part 261, appendix VII, and the constituents identified in 40 C.F.R. §268.40 for which each waste has a treatment standard. A facility shall be eligible to claim the exemption once notification of the possible de minimis releases have been provided via the clean water act permit application or the pretreatment control authority submission. A copy of the federal clean water act permit application or the submission to the pretreatment control authority shall be placed in the facility's on-site files.

(v) Wastewater which results from laboratory operations and which contains toxic (T) wastes listed in R 299.9213 or R 299.9214 if the annualized average flow of laboratory wastewater is not more than 1% of total wastewater flow into the headworks of the facility's

wastewater treatment or pretreatment system or if the wastes' combined annualized average concentration is not more than 1 part per million in the headworks of the facility's wastewater treatment or pretreatment facility. Toxic (T) wastes which are used in laboratories and which are demonstrated not to be discharged to wastewater shall not be included in the calculation.

(vi) Wastewater from the production of carbamates and carbamoyl oximes, K157, if the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine, including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or recovered, divided by the average weekly flow of process wastewater before any dilutions into the headworks of the facility's wastewater treatment system is not more than a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system is not more than 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if the director finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, the director shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(vii) Wastewater derived from the treatment of organic waste from the production of carbamates and carbamoyl oximes, K156, if the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine before any dilutions into the headworks of the facility's wastewater treatment system is not more than a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system is not more than 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the director. A facility shall file a revised sampling and analysis plan if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location at the headworks, the sampling frequency and methodology, and a list of constituents to be monitored. A facility shall be eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if the director finds that the sampling and analysis plan does not include the required information or the plan parameters do not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the director rejects the sampling and analysis plan or finds that the facility is not following the sampling and analysis plan, the director shall notify the facility that it must cease the use of the direct monitoring option until the bases for the rejection are corrected.

(d) It is a mixture of a waste and a hazardous waste that meets the characteristic of severe toxicity pursuant to R 299.9212(5).

(e) It is a used oil that contains more than 1,000 parts per million total halogens. Used oil that contains more than 1,000 parts per million is presumed to be a hazardous waste and is regulated as such under part 111 of the act and these rules. A person may rebut the presumption by demonstrating that the used oil does not contain hazardous waste. The demonstration may be made by showing that the used oil does not contain significant concentrations of halogenated

hazardous constituents that are listed in 40 C.F.R. part 261, appendix VIII. The rebuttable presumption rule does not apply to the following materials:

(i) Metalworking oils or fluids that contain chlorinated paraffins if the oils or fluids are processed through a tolling agreement as specified in 40 C.F.R. §279.24(c) to reclaim the oils or fluids. The rebuttable presumption does apply, however, if the oils or fluids are recycled in any other manner or are disposed of.

(ii) Used oils that are contaminated with chlorofluorocarbons which have been removed from refrigeration units if the chlorofluorocarbons are destined for reclamation. The rebuttable presumption does apply, however, if the used oils are contaminated with chlorofluorocarbons that have been mixed with used oil from sources other than refrigeration units.

(2) A waste that is not excluded from regulation pursuant to R 299.9204(1) or (2) becomes a hazardous waste when any of the following events occur:

(a) In the case of a waste that is listed in R 299.9213 or R 299.9214, when the waste first meets the listing description.

(b) In the case of a mixture of waste and one or more listed hazardous wastes or severely toxic wastes, when a waste that is hazardous pursuant to R 299.9212(5), R 299.9213, or R 299.9214 is first added to the waste.

(c) In the case of any other waste, including a waste mixture, when the waste exhibits any of the characteristics identified in R 299.9212.

(3) Unless and until it meets the criteria of subrule (5) of this rule, a hazardous waste will remain a hazardous waste, and, except as provided in subrules (4), (7), and (8) of this rule, any waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate, but not including precipitation runoff, is a hazardous waste. Materials that are reclaimed from wastes and that are used beneficially are not wastes and hence are not hazardous wastes pursuant to this subrule, unless the reclaimed material is burned for energy recovery or used in a manner that constitutes disposal.

(4) All of the following wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit 1 or more of the characteristics of hazardous waste:

(a) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry, as defined by standard industrial codes 331 and 332 in the office of management and budget document entitled "Standard Industrial Classification Manual."

(b) Wastes from burning any of the materials exempted from regulation by R 299.9206(3)(c) to (f).

(c) Nonwastewater residues, such as slag, which result from high temperature metals recovery processing of K061, K062, or F006 waste in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations, or industrial furnaces and which are disposed of in units regulated under part 115 of the act, if the residues are in compliance with the specified generic exclusion levels. Testing requirements shall be incorporated in a facility's waste analysis plan or generator's self-implementing waste analysis plan. At a minimum, samples of residues shall be collected and analyzed quarterly or when the process or operation generating the waste changes. A person who claims this exclusion in an enforcement action shall have the burden of proving, by clear and convincing evidence, that the material meets all of the exclusion requirements:

(i) For K061 and K062 nonwastewater high temperature metals recovery residues, the specified generic exclusion levels are as follows:

(A) Antimony, 0.10 mg/l.

(B) Arsenic, 0.50 mg/l.

(C) Barium, 7.6 mg/l.

(D) Beryllium, 0.010 mg/l.

(E) Cadmium, 0.050 mg/l.

- (F) Chromium (total), 0.33 mg/l.
- (G) Lead, 0.15 mg/l.
- (H) Mercury, 0.009 mg/l.
- (I) Nickel, 1.0 mg/l.
- (J) Selenium, 0.16 mg/l.
- (K) Silver, 0.30 mg/l.
- (L) Thallium, 0.020 mg/l.
- (M) Zinc, 70 mg/l.

(ii) For F006 nonwastewater high temperature metals recovery residues, the specified generic exclusion levels are as follows:

- (A) Antimony, 0.10 mg/l.
- (B) Arsenic, 0.50 mg/l.
- (C) Barium, 7.6 mg/l.
- (D) Beryllium, 0.010 mg/l.
- (E) Cadmium, 0.050 mg/l.
- (F) Chromium (total), 0.33 mg/l.
- (G) Cyanide (total), 1.8 mg/kg.
- (H) Lead, 0.15 mg/l.
- (I) Mercury, 0.009 mg/l.
- (J) Nickel, 1.0 mg/l.
- (K) Selenium, 0.16 mg/l.
- (L) Silver, 0.30 mg/l.
- (M) Thallium, 0.020 mg/l.
- (N) Zinc, 70 mg/l.

(iii) For nonwastewater residues resulting from the high temperature metals recovery processing of KO61, K062, or F006 waste which meet the generic exclusion levels specified in this subdivision and which do not exhibit any hazardous waste characteristic, and which are sent to a unit regulated under part 115 of the act, the person claiming the exclusion shall send a 1-time notification and certification to the director. The notification and certification shall be in compliance with all of the following provisions:

(A) The notification and certification shall be maintained at the facility.

(B) The notification and certification shall be updated by the person claiming the exclusion if the process or operation generating the waste changes or if the unit regulated under part 115 of the act that is receiving the waste changes. However, the director need only be notified on an annual basis, by the end of the calendar year, if a change occurs.

(C) The notification shall include all of the following information:

(1) The name and address of the unit regulated under part 115 of the act that is receiving the waste shipment.

(2) The site identification number and treatability group of the waste at the initial point of generation.

(3) The treatment standards applicable to the waste at the initial point of generation.

(D) The certification shall be signed by an authorized representative and shall include the following statement: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(d) Biological treatment sludge from the treatment of organic wastes from the production of carbamates and carbamoyl oximes, K156, or wastewaters from the production of carbamates and carbamoyl oximes, K157.

(e) Catalyst inert support media separated from either or both of the following wastes listed in R299.9213:

- (i) Spent hydrotreating catalyst, K171.
- (ii) Spent hydrorefining catalyst, K172.
- (5) Any waste that is described in subrule (3) of this rule is not a hazardous waste if it is in compliance with the following criteria, as applicable:
 - (a) In the case of any waste, it does not exhibit any of the characteristics of hazardous waste that are identified in R 299.9212. However, a waste that exhibits a characteristic at the point of generation may still be subject to the requirements of 40 C.F.R. part 268, even if the waste does not exhibit a characteristic at the point of land disposal.
 - (b) In the case of a waste which is listed in R 299.9212(5), R 299.9213, or R 299.9214, which contains a waste that is listed in these rules, or which is derived from a waste that is listed in these rules, the waste also has been excluded from regulation pursuant to R 299.9211.
- (6) Notwithstanding subrules (1) to (5) of this rule and if the debris, as defined in 40 C.F.R. part 268, does not exhibit a hazardous characteristic identified in R 299.9212, the following materials are not subject to regulation under part 111 of the act and these rules, except for R 299.9809 to R 299.9816:
 - (a) Hazardous debris that has been treated using 1 of the required extraction or destruction technologies specified in table 1 of 40 C.F.R. §268.45. A person who claims this exclusion in an enforcement action shall have the burden of proving, by clear and convincing evidence, that the material meets all of the exclusion requirements.
 - (b) Debris that the director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.
- (7) A hazardous waste that is listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more characteristics of ignitability, corrosivity, or reactivity, as defined under R 299.9212, is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in R 299.9212. However, the waste remains subject to 40 C.F.R. part 268, as applicable, even if the waste no longer exhibits a characteristic at the point of land disposal. This exclusion is limited to any of the following:
 - (a) A mixture of a waste and a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more characteristics of ignitability, corrosivity, or reactivity which is generated as a result of a cleanup conducted at the individual site of generation pursuant to part 31, part 111, part 201, part 213, or CERCLA.
 - (b) A waste generated from the treatment, storage, or disposal of a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits the characteristic of ignitability.
 - (c) A mixture of a waste excluded from regulation under R 299.9204(2)(h) and a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more of the characteristics of ignitability, corrosivity, or reactivity which is generated as a result of a cleanup conducted at the individual site of generation pursuant to part 31, part 111, part 201, part 213, or CERCLA.
- (8) Hazardous waste that contains radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of R 299.9822 and R 299.9823. This exclusion is limited to either of the following:
 - (a) A mixture of a waste and an eligible radioactive mixed waste.
 - (b) A waste generated from the treatment, storage, or disposal of an eligible radioactive mixed waste.
- (9) The office of management and budget document entitled "Standard Industrial Classification Manual" is adopted by reference in R 299.11007.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9204 Exclusions.

Rule 204. (1) The following materials are not wastes for the purpose of part 111 of the act and these rules:

(a) Domestic sewage and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly owned treatment works for treatment. Domestic sewage means untreated sanitary wastes that pass through a sewer system.

(b) Industrial wastewater discharges that are point source discharges subject to regulation pursuant to section 402 of the federal clean water act, as amended, except for discharges to injection wells.

(c) Irrigation return flows.

(d) Source, special nuclear, or by-product material as defined by the atomic energy act of 1954, as amended, 42 U.S.C. §2011 et seq.

(e) Materials which are subjected to in-situ mining techniques and which are not removed from the ground as part of the extraction process.

(f) Pulping liquors that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless the liquors are accumulated speculatively, as defined in R 299.9107.

(g) Spent sulfuric acid that is used to produce virgin sulfuric acid, unless the spent acid is accumulated speculatively, as defined in R 299.9107.

(h) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated and where they are reused in the production process, if all of the following provisions apply:

(i) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance.

(ii) The reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators.

(iii) The secondary materials are not accumulated in such tanks for more than 12 months without being reclaimed.

(iv) The reclaimed material is not used to produce a fuel and is not used to produce products that are used in a manner that constitutes disposal.

(i) Spent wood preserving solutions which have been reclaimed and which are reused for their original intended purpose.

(j) Wastewaters from the wood preserving process which have been reclaimed and which are reused to treat wood.

(k) Nonwaste water splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, if the residue, if shipped, is shipped, in containers and is not land disposed before recovery.

(l) Oil-bearing hazardous secondary materials such as sludges, by-products, and spent materials, that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911), including distillation, catalytic cracking, fractionation, or thermal cracking units, unless the material is placed on the land, or accumulated speculatively before being so recycled. Materials inserted into thermal cracking units are excluded under this subdivision if the coke product does not exhibit a characteristic of a hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another refinery, and still be excluded under this subdivision. Except as provided for in subdivision (m) of this subrule, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry are not excluded under this subdivision. Residuals generated from processing or recycling materials excluded under this subdivision, where such materials as generated would have otherwise met a listing under R 299.9213 or R 299.9214, are designated as F037 wastes when disposed of or intended for disposal.

(m) Recovered oil that is recycled in the same manner and with the same conditions as described in subdivision (l) of this subrule. Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4789, 4922, 4923, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in part 2 of these rules. However, oil recovered from oil-bearing hazardous wastes listed in part 2 of these rules may be considered recovered oil. Recovered oil also does not include used oil as defined in R 299.9109.

(n) EPA hazardous waste numbers K060, K087, K141, K142, K143, K144, K145, K147, and K148 and any wastes from the coke by-products processes that are hazardous only because they exhibit the toxicity characteristic specified in R 299.9212 when, after generation, the materials are recycled to coke ovens or to the tar recovery process as a feedstock to produce coal tar or are mixed with coal tar before the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point that the wastes are generated to the point that they are recycled to coke ovens or tar recovery or refining processes or are mixed with coal tar.

(o) Materials which are reclaimed from used oil and which are used beneficially if the materials are not burned for energy recovery or used in a manner that constitutes disposal of the materials.

(p) Excluded scrap metal that is being recycled.

(q) Shredded circuit boards that are being recycled if both of the following requirements are met:

(i) The shredded circuit boards are stored in containers sufficient to prevent a release to the environment before recovery.

(ii) The shredded circuit boards are free of mercury switches, mercury relays, and nickel-cadmium batteries and lithium batteries.

(r) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 C.F.R. §63.446(e). This exemption applies only to combustion at the mill generating the condensates.

(s) Petrochemical recovered oil from an associated organic chemical manufacturing facility, where the oil is to be inserted into the petroleum refining process (SIC code 2911) along with normal petroleum refinery process streams, provided both the following requirements are met:

(i) The oil is hazardous only because it exhibits the characteristic of ignitability as defined in R 299.9212 or toxicity for benzene as defined in R 299.9212 and R 299.9217.

(ii) The oil generated by the organic chemical manufacturing facility is not placed on the land or speculatively accumulated before being recycled into the petroleum refining process.

(t) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land or speculatively accumulated.

(u) Before reuse, the wood preserving wastewaters and spent wood preserving solutions described in subdivisions (i) and (j) of this subrule if all of the following requirements are met:

(i) The wood preserving wastewaters and spent wood preserving solutions are reused on site at water borne plants in the production process for their original intended use.

(ii) Before reuse, the wastewaters and spent wood preserving solutions are managed to prevent releases to either the land or groundwater or both.

(iii) Units used to manage wastewaters or spent wood preserving solutions before reuse can be visually or otherwise determined to prevent releases to either land or groundwater.

(iv) Drip pads used to manage the wastewaters or spent wood preserving solutions before reuse are in compliance with 40 C.F.R. part 265, subpart W regardless of whether the plant generates a total of less than 1,000 kilograms per month of hazardous waste.

(v) Before operating pursuant to this exclusion, the plant owner or operator complies with all of the following requirements otherwise the exclusion shall not apply:

(A) Submits a 1-time notification to the director stating that the plant intends to claim the exclusion, giving the date on which the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulations."

(B) The owner or operator maintains a copy of the 1-time notification required pursuant to subparagraph (v) of this subdivision in its on-site records until closure of the facility.

(C) If the plant voids the exclusion by not complying with the exclusion conditions and wishes to have its wastes excluded again, it shall apply to the director for reinstatement. The director may reinstate the exclusion upon finding that the plant has returned to compliance with all of the conditions and that violations are not likely to recur.

(v) Spent materials, other than hazardous waste listed under R 299.9213 or R 299.9214, that are generated within the primary mineral processing industry from which minerals, acids, cyanide, water, or other values are recovered by mineral processing or by beneficiation if all of the following requirements are met:

(i) The spent material is legitimately recycled to recover minerals, acids, cyanide, water, or other values.

(ii) The spent material is not speculatively accumulated.

(iii) Except as provided under paragraph (iv) of this subdivision, the spent material is stored in tanks, containers, or buildings which meet the following requirements as applicable:

(A) If using a building, the building shall be an engineered structure with a floor, walls, and a roof all of which are made of non-earthen materials providing structural support, except smelter buildings which may have partially earthen floors provided that the spent material is stored on the non-earthen portion, have a roof which is suitable for diverting rainwater away from the foundation, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(B) If using a tank, the tank shall be free standing, not meet the definition of a surface impoundment, be manufactured of a material suitable for containment of its contents, be operated in a manner which controls fugitive dust if the tank contains any particulate which may be subject to wind dispersal, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(C) If using a container, the container shall be free standing and be manufactured of a material suitable for containment of its contents, be operated in a manner which controls fugitive dust if the container contains any particulate which may be subject to wind dispersal, and be designed, constructed, and operated to prevent significant releases of the material to the environment.

(iv) The spent materials are placed on pads if all of the following requirements are met:

(A) The solid mineral processing spent materials do not contain any free liquid.

(B) The pad is designed, constructed, and operated to prevent significant releases of the spent material into the environment.

(C) The pad provides the same degree of containment afforded by non-RCRA tanks, containers, and buildings eligible for this exclusion.

(D) The pad is designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material.

(E) The pad is capable of withstanding physical stresses associated with placement and removal.

(F) The pad has run-on/run-off controls.

(G) The pad is operated in a manner which controls fugitive dust.

(H) The integrity of the pad is ensured through inspections and maintenance programs.

(I) The director makes a site-specific determination that the materials may be placed on a pad rather than in tanks, containers, or buildings. In making such a determination, the director shall consider whether storage on a pad poses the potential for significant releases via groundwater, surface water, and air exposure pathways. When assessing the groundwater, surface water, and air exposure pathways, the director shall consider the volume and physical and chemical properties of the spent material, including its potential for migration off of the pad, the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway, and the possibility and extent of harm to human and environmental receptors via each exposure pathway. Before making such a determination, the director shall provide notice and the opportunity for comment to all persons potentially interested in the determination. Notice may be accomplished by placing notice of the action in major local newspapers or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the director which provides the following information and is updated when there is a change in the type of materials recycled or the location of the recycling process:

(A) The types of materials to be recycled.

(B) The type and location of storage units and recycling processes.

(C) The annual quantities expected to be placed in land-based units.

(vi) For the purposes of the exclusion under R 299.9204(2)(h), mineral processing spent materials shall be the result of mineral processing and may not include any hazardous wastes listed under R 299.9213 or R 299.9214. Listed hazardous wastes and characteristic hazardous waste generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of waste.

(w) Comparable fuels or comparable syngas fuels that meet the requirements of R 299.9230.

(x) Hazardous secondary materials used to make zinc fertilizers, if the following conditions are met:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers shall not be accumulated speculatively.

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall comply with all of the following requirements:

(A) Submit a 1-time notice to the director which contains the name, address, and site identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions of this subdivision.

(B) Store the excluded secondary material in buildings, tanks, or containers that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers that are used for this purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that have containment structures or systems sufficiently impervious to contain leaks, spills, and accumulated precipitation; provide for effective drainage and removal of leaks, spills, and accumulated precipitation; and prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of this subdivision.

(D) Maintain at the generator's or intermediate handler's facility for no less than 3 years records of all shipments of excluded hazardous secondary materials. At a minimum, the records for each shipment shall include the name of the transporter, the date of the shipment, the name and address of the facility that received the excluded material, documentation confirming receipt of the shipment, and the type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall comply with all of the following requirements:

(A) Store excluded hazardous secondary material pursuant to the storage requirements for generators and intermediate handlers, as specified in paragraph (ii) of this subdivision.

(B) Submit a 1-time notification to the director which contains the name, address, and site identification number of the manufacturing facility and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions of this subdivision.

(C) Maintain for no less than 3 years records of all shipments of excluded hazardous secondary materials received by the manufacturer. At a minimum, the records for each shipment shall include the name and address of the generating facility, the name of the transporter, the date the materials were received, the quantity of materials received, and a brief description of the industrial process that generated the material.

(D) Submit to the director an annual report which identifies the total quantities of all excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial process from which they were generated.

(iv) Nothing in this subdivision preempts, overrides, or otherwise negates the requirements of R 299.9302 which requires any person who generates a waste to determine if the waste is a hazardous waste.

(v) Interim status and licensed storage units that have been used to store only zinc-bearing hazardous wastes before the submission of the 1-time notice described in paragraph (ii) of this subdivision, and that afterward will be used only to store hazardous secondary materials excluded under this subdivision, are not subject to the closure requirements of part 6 of these rules.

(y) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under subdivision (x) of this subrule, provided that the following conditions are met:

(i) The fertilizers meet the following contaminant limits, established as the maximum allowable total concentration in fertilizer per 1% of zinc, for metal contaminants:

(A) Arsenic, 0.3 parts per million.

(B) Cadmium, 1.4 parts per million.

(C) Chromium, 0.6 parts per million.

(D) Lead, 2.8 parts per million.

(E) Mercury, 0.3 parts per million.

(ii) The fertilizers meet the contaminant limit for dioxin contaminants of not more than 8 parts per trillion of dioxin, measured as toxic equivalent.

(iii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals not less than every 6 months, and for dioxins not less than every 12 months. Testing shall also be performed whenever changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical methods to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the products introduced into commerce.

(iv) The manufacturer maintains for not less than 3 years records of all sampling and analysis performed for the purposes of determining compliance with the requirements of paragraph (iii) of this subdivision. At a minimum, such records shall include all of the following:

(A) The dates and times product samples were taken, and the dates the samples were analyzed.

(B) The names and qualifications of the persons taking the samples.

(C) A description of the methods and equipment used to take the samples.

(D) The name and address of the laboratory facility at which analyses of the samples were performed.

(E) A description of the analytical methods used, including any cleanup and sample preparation methods.

(F) All laboratory analytical results used to determine compliance with the contaminant limits specified in paragraphs (i) and (ii) of this subdivision.

(z) Used CRTs that meet any of the following requirements:

(i) Used, intact CRTs unless they are disposed or are speculatively accumulated by CRT collectors or glass processors.

(ii) Used, intact CRTs when exported for recycling if they meet the requirements of R 299.9231(5).

(iii) Used, broken CRTs if they meet the requirements of R 299.9231(1) and (2).

(iv) Glass removed from CRTs if it meets the requirements of R299.9231(3).

(2) The following wastes are not hazardous wastes for the purposes of part 111 of the act and these rules:

(a) Household waste, including household waste that has been collected, transported, stored, treated, disposed of, recovered, or reused. Household waste means any waste material, including garbage, trash, and sanitary wastes in septic tanks, that is derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility that manages municipal waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation pursuant to these rules if the facility is in compliance with both of the following provisions:

(i) Receives and burns only household waste from single and multiple dwellings, hotels, motels, and other residential sources and waste from commercial or industrial sources that does not contain hazardous waste.

(ii) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(b) Wastes which are generated by either of the following and which are returned to the soil as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(c) Mining overburden that is returned to the mine site.

(d) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste that is generated primarily from the combustion of coal or other fossil fuels, except as provided by 40 C.F.R. §266.112 for facilities that burn or process hazardous waste.

(e) Drilling fluids, produced waters, and other wastes that are associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.

(f) Wastes which fail the test for the toxicity characteristic because chromium is present or wastes that are listed in R 299.9213 or R 299.9214 due to the presence of chromium, which do not fail the test for the toxicity characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if

it is shown by a waste generator or by waste generators that all of the following provisions are met:

- (i) The chromium in the waste is exclusively, or nearly exclusively, trivalent chromium.
- (ii) The waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium.
- (iii) The waste is typically and frequently managed in nonoxidizing environments.
- (g) The following specific wastes that are in compliance with the standard in subdivision (f) of this subrule, if the wastes do not fail the test for the toxicity characteristic for any other constituent and do not fail the test for any other characteristic:
 - (i) Chrome (blue) trimmings generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.
 - (B) Hair save/chrome, tan/retan/wet finish.
 - (C) Retan/wet finish.
 - (D) No beamhouse.
 - (E) Through-the-blue.
 - (F) Shearling.
 - (ii) Chrome (blue) shavings generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.
 - (B) Hair save/chrome, tan/retan/wet finish.
 - (C) Retan/wet finish.
 - (D) No beamhouse.
 - (E) Through-the-blue.
 - (F) Shearling.
 - (iii) Buffing dust generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.
 - (B) Hair save/chrome, tan/retan/wet finish.
 - (C) Retan/wet finish.
 - (D) No beamhouse.
 - (E) Through-the-blue.
 - (iv) Sewer screenings generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.
 - (B) Hair save/chrome, tan/retan/wet finish.
 - (C) Retan/wet finish.
 - (D) No beamhouse.
 - (E) Through-the-blue.
 - (F) Shearling.
 - (v) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.
 - (B) Hair save/chrome, tan/retan wet finish.
 - (C) Retan/wet finish.
 - (D) No beamhouse.
 - (E) Through-the-blue.
 - (F) Shearling.
 - (vi) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:
 - (A) Hair pulp/chrome, tan/retan/wet finish.

- (B) Hair save/chrome, tan/retan/wet finish.
- (C) Through-the-blue.
- (vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.
- (viii) Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.
- (ix) Ink generated by United States postal service in its automated facer canceled systems.
- (h) Waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided in 40 C.F.R. §266.112 for facilities that burn or process hazardous waste. For purposes of this subdivision, the following provisions apply:
 - (i) Beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water or carbon dioxide, or both; roasting, autoclaving, or chlorination, or any combination thereof, in preparation for leaching, except where the roasting/leaching or autoclaving/leaching or chlorination/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in-situ leaching.
 - (ii) Waste from the processing of ores and minerals shall include only the following wastes as generated:
 - (A) Slag from primary copper processing.
 - (B) Slag from primary lead processing.
 - (C) Red and brown muds from bauxite refining.
 - (D) Phosphogypsum from phosphoric acid production.
 - (E) Slag from elemental phosphorus production.
 - (F) Gasifier ash from coal gasification.
 - (G) Process wastewater from coal gasification.
 - (H) Calcium sulfate wastewater treatment plant sludge from primary copper processing.
 - (I) Slag tailings from primary copper processing.
 - (J) Fluorogypsum from hydrofluoric acid production.
 - (K) Process wastewater from hydrofluoric acid production.
 - (L) Air pollution control dust/sludge from iron blast furnaces.
 - (M) Iron blast furnace slag.
 - (N) Treated residue from roasting/leaching of chrome ore.
 - (O) Process wastewater from primary magnesium processing by the anhydrous process.
 - (P) Process wastewater from phosphoric acid production.
 - (Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production.
 - (R) Basic oxygen furnace and open hearth furnace slag from carbon steel production.
 - (S) Chloride process waste solids from titanium tetrachloride production.
 - (T) Slag from primary zinc processing.
 - (iii) Residues derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remain excluded under subrule (2) of this rule if the owner or operator meets both of the following requirements:
 - (A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials.
 - (B) Legitimately reclaims the secondary mineral processing materials.
- (i) Mixtures of a waste that is excluded from regulation pursuant to subdivision (h) of this subrule and any other waste that exhibits a hazardous waste characteristic pursuant to R

299.9212 and that is not listed pursuant to R 299.9213 or R 299.9214, such that the resultant mixture does not exhibit any hazardous waste characteristic that would have been exhibited by the non-excluded waste alone if the mixture had not occurred.

(j) Cement kiln dust waste, except as provided in 40 C.F.R. §266.112 for facilities that burn or process hazardous waste.

(k) Waste which consists of discarded arsenical-treated wood or wood products, which fails the test for the toxicity characteristic for hazardous waste numbers D004 through D017 and which is not a hazardous waste for any other reason, if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(l) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic pursuant to R 299.9212 for hazardous waste numbers D018 through D043 only and are subject to the corrective action regulations pursuant to 40 C.F.R. part 280.

(m) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, if the refrigerant is reclaimed for further use.

(n) Non-terne plated used oil filters that are not mixed with wastes that are identified in R 299.9213 or R 299.9214, or both, if the oil filters have been gravity hot-drained using 1 of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining.

(ii) Hot-draining and crushing.

(iii) Dismantling and hot-draining.

(iv) Any other equivalent hot-draining method that will remove used oil.

(o) Leachate or gas condensate collected from landfills where certain wastes have been disposed of provided that all of the following requirements are met:

(i) The wastes disposed would meet 1 or more of the listing descriptions for hazardous waste numbers K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181 if these wastes had been generated after the effective date of the listing.

(ii) The wastes described in paragraph (i) of this subdivision were disposed before the effective date of the listing.

(iii) The leachate or gas condensate do not exhibit any characteristic of a hazardous waste and are not derived from any other listed hazardous waste.

(iv) The discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a publicly owned treatment works by truck, rail, or dedicated pipe, is subject to regulations under sections 307(b) or 402 of the federal clean water act.

(v) As of February 13, 2001, leachate or gas condensate derived from K169, K170, K171, and K172 is no longer exempt if it is stored or managed in a surface impoundment before discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, or K178 is no longer exempt if it is stored or managed in a surface impoundment before discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment before discharge unless the surface impoundment meets both of the following requirements:

(A) The surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation.

(B) The surface impoundment has a double liner, and the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of subdivision (o) of this subrule after the emergency ends.

(3) The following hazardous wastes are not subject to regulation pursuant to parts 3 to 10 of these rules:

(a) A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or a manufacturing process unit or an associated nonwaste treatment manufacturing unit. This exemption does not apply in any of the following circumstances:

(i) Once the waste exits the unit in which it was generated.

(ii) If the unit is a surface impoundment.

(iii) If the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for the manufacturing, storage, or transportation of product or raw materials.

(b) Waste pesticides and pesticide residues which are generated by a farmer from his or her own use and which are hazardous wastes if the pesticide residues are disposed of on the farmer's own farm in a manner that is consistent with the disposal instructions on the pesticide container label and if the farmer empties or cleans each pesticide container pursuant to R 299.9207.

(4) Except as provided in subrule (5) of this rule, a sample of waste or a sample of water, soil, or air that is collected for the sole purpose of testing to determine its characteristics or composition is not subject to part 111 of the act and these rules if 1 of the following provisions is met:

(a) The sample is being transported to a laboratory for the purpose of testing.

(b) The sample is being transported back to the sample collector after testing.

(c) The sample is being stored by the sample collector before transport to a laboratory for testing.

(d) The sample is being stored in a laboratory before testing.

(e) The sample is being stored in a laboratory after testing but before it is returned to the sample collector.

(f) The sample is being stored temporarily in the laboratory after testing for a specific purpose, such as until conclusion of a court case or enforcement action where further testing of the sample might be necessary.

(5) To qualify for the exemption specified in subrule (4) of this rule, a sample collector that ships samples to a laboratory and a laboratory that returns samples to a sample collector shall comply with DOT, United States postal service, or any other applicable shipping requirements. The sample collector shall only ship a volume that is necessary for testing and analysis and, if the sample collector determines that DOT, United States postal service, or other shipping requirements do not apply to the shipment of the sample, the sample collector shall package the sample so that it does not leak, spill, or vaporize from its packaging and assure that all of the following information accompanies the sample:

(a) The sample collector's name, mailing address, and telephone number.

(b) The laboratory's name, mailing address, and telephone number.

(c) The quantity of the sample.

(d) The date of shipment.

(e) A description of the sample.

(6) The exemption specified in subrule (4) of this rule does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer in compliance with any of the conditions stated in subrule (5) of this rule.

(7) Persons who generate or collect samples for the purpose of conducting treatability studies as defined in R 299.9108 are not subject to the requirements of parts 2, 3, and 4 of these rules or the notification requirements of section 3010 of RCRA and the samples are not included in the quantity determinations specified in R 299.9205 and R 299.9306(4) when the sample is being collected and prepared for transportation by the generator or sample collector, the sample is being accumulated or stored by the generator or sample collector before transportation to a laboratory or testing facility, or the sample is being transported to a laboratory or testing facility for the purpose of conducting a treatability study. The exemption specified in this subrule is applicable to samples of hazardous waste that are

being collected and shipped for the purpose of conducting treatability studies if all of the following provisions are complied with:

(a) The generator or sample collector does not use more than 10,000 kilograms of media that is contaminated with nonacute hazardous waste, 1,000 kilograms of any nonacute hazardous waste other than contaminated media, 1 kilogram of acute or severely toxic hazardous waste, or 2,500 kilograms of media that is contaminated with acute or severely toxic hazardous waste for each process that is being evaluated for each generated waste stream in a treatability study.

(b) The mass of each sample shipment is not more than 10,000 kilograms. The 10,000-kilograms quantity may be all media contaminated with nonacute hazardous waste or may include 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, 1,000 kilograms of nonacute hazardous waste, and 1 kilogram of acute or severely toxic hazardous waste.

(c) The sample shall be packaged and transported so that it will not leak, spill, or vaporize from its packaging during shipment and so that either of the following requirements are met:

(i) The transportation of each sample shipment is in compliance with United States department of transportation, United States postal service, or any other applicable shipping requirements.

(ii) If the DOT, United States postal service, or other shipping requirements do not apply to the shipment of the sample, all of the following information shall accompany the sample:

(A) The name, mailing address, and telephone number of the originator of the sample.

(B) The name, address, and telephone number of the facility that will perform the treatability study.

(C) The quantity of the sample.

(D) The date of the shipment.

(E) A description of the sample, including its hazardous waste number.

(d) The sample is shipped to a laboratory or testing facility that is exempt pursuant to subrule (10) of this rule or has an appropriate RCRA permit, state hazardous waste operating license, or interim status.

(e) The generator or sample collector maintains all of the following records for 3 years after completion of the treatability study:

(i) Copies of the shipping documents.

(ii) A copy of the contract with the facility that conducts the treatability study.

(iii) Documentation that shows all of the following information:

(A) The amount of waste that is shipped pursuant to this exemption.

(B) The name, address, and site identification number of the laboratory or testing facility that received the waste.

(C) The date the shipment was made.

(D) If unused samples and residues were returned to the generator.

(f) The generator reports the information required pursuant to subdivision

(e)(iii) of this subrule as part of the data referenced in R 299.9308(1).

(8) The director may grant requests on a case-by-case basis for up to an additional 2 years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits in excess of those specified in subrules (7)(a) and (b) and (10)(d) of this rule for up to an additional 5,000 kilograms of media contaminated with nonacute hazardous waste, 500 kilograms of nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, and 1 kilogram of acute or severely toxic hazardous waste. A request may be granted in response to 1 or both of the following requests:

(a) A request for authorization to ship, store, and conduct treatability studies on, additional quantities in advance of commencing treatability studies. The director shall consider all of the following factors in determining whether to grant the request:

(i) The nature of the technology.

(ii) The type of process.

- (iii) The size of the unit undergoing testing, particularly in relation to scale-up considerations.
 - (iv) The time and quantity of material required to reach steady state operating conditions.
 - (v) Test design considerations such as mass balance calculations.
- (b) A request for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies when any of the following occur:
- (i) There has been an equipment or mechanical failure during the conduct of a treatability study.
 - (ii) There is a need to verify the results of a previously conducted treatability study.
 - (iii) There is a need to study and analyze alternative techniques within a previously evaluated treatment process.
 - (iv) There is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.
- (9) The additional quantities and time frames allowed under subrule (8) of this rule are subject to this rule. The generator or sample collector shall apply to the director and shall provide, in writing, all of the following information:
- (a) The reason why the generator or sample collector requires an additional quantity of the sample or time for the treatability study evaluation and the additional quantity or time needed.
 - (b) Documentation accounting for all samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies, including all of the following information:
 - (i) The date that each previous sample from the waste stream was shipped.
 - (ii) The sample quantity of each previous shipment.
 - (iii) The laboratory or testing facility to which the sample was shipped.
 - (iv) What treatability study processes were conducted on each sample shipped.
 - (v) The available results of each treatability study.
 - (c) A description of the technical modifications or change in specifications that will be evaluated and the expected results.
 - (d) If further study is being required due to equipment or mechanical failure, then the applicant shall include information regarding the reason for the failure and also include a description of what procedures were established, or what equipment improvements have been made, to protect against further equipment or mechanical failure.
 - (e) Other information that the director considers necessary.
- (10) Samples that undergo treatability studies and the laboratory or testing facility that conducts the treatability studies, to the extent the facilities are not otherwise subject to the requirements of part 111 of the act or these rules, are not subject to any of the requirements of these rules or to the notification requirements of section 3010 of RCRA if the conditions of this subrule are met. A mobile treatment unit may qualify as a testing facility subject to this subrule. If a group of mobile treatment units is located at the same site, then the limitations specified in this subrule apply to the entire group of mobile treatment units collectively as if the group were 1 mobile treatment unit. The conditions are as follows:
- (a) Not less than 45 days before conducting treatability studies, the facility shall notify the director, in writing, that it intends to conduct treatability studies pursuant to this rule.
 - (b) The laboratory or testing facility that conducts the treatability study has a site identification number.
 - (c) Not more than a total of 10,000 kilograms of "as received" media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, or 250 kilograms of other "as received" hazardous waste is subjected to the initiation of treatment in all treatability studies in any single day." As received" hazardous waste refers to waste as received in the shipment from the generator or sample collector.
 - (d) The quantity of "as received" hazardous waste that is stored at the facility for the purpose of evaluation in treatability studies is not more than 10,000 kilograms, the total of which may

include 10,000 kilograms of media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, 1,000 kilograms of nonacute hazardous waste other than contaminated media, and 1 kilogram of acute or severely toxic hazardous waste. The quantity limitation does not include treatment materials, including nonhazardous waste, that are added to "as received" hazardous waste.

(e) Not more than 90 days have elapsed since the treatability study for the sample was completed, or not more than 1 year, or 2 years for treatability studies involving bioremediation, has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date occurs first.

(f) The treatability study does not involve the placement of hazardous waste on the land or the open burning of hazardous waste.

(g) The facility maintains records, for 3 years following completion of each study, that show compliance with the treatment rate limits, storage time, and quantity limits. All of the following specific information shall be included for each treatability study that is conducted:

(i) The name, address, and site identification number of the generator or sample collector of each waste sample.

(ii) The date the shipment was received.

(iii) The quantity of waste accepted.

(iv) The quantity of "as received" waste in storage each day.

(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day.

(vi) The date the treatability study was concluded.

(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the site identification number.

(h) The facility keeps, on site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

(i) The facility prepares and submits a report to the director by March 15 of each year that includes all of the following information for the previous calendar year:

(i) The name, address, and site identification number of the facility conducting the treatability studies.

(ii) The types, by process, of treatability studies conducted.

(iii) The names and addresses of persons for whom studies have been conducted, including their site identification numbers.

(iv) The total quantity of waste in storage each day.

(v) The total quantity and types of waste subjected to treatability studies.

(vi) When each treatability study was conducted.

(vii) The final disposition of residues and unused sample from each treatability study.

(j) The facility determines if any unused sample or residues generated by the treatability study are hazardous waste pursuant to R 299.9203 and, if so, are subject to these rules, unless the residues and unused samples are returned to the sample originator pursuant to the exemption in subrule (7) of this rule.

(k) The facility notifies the director, by letter, when the facility is no longer planning to conduct any treatability studies at the site.

(11) The disposal of PCB-containing dielectric fluid and electric equipment that contains the fluid as authorized for use and as regulated pursuant to 40 C.F.R. part 761 and fluid and equipment that are hazardous only because they fail the test for the toxicity characteristic for hazardous waste numbers D018 through D043 are not subject to regulation pursuant to parts 2 to 7 and 9 and 10 of these rules.

(12) Dredged material, as defined in 40 C.F.R. §232.2, that is subject to the requirements of a permit that has been issued pursuant to section 404 of the federal water pollution control act, 33 U.S.C. §1344, or section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413, is not a hazardous waste for the purposes of part 111 of the act and these rules. For the purposes of this exemption, the term "permit" means any of the following:

(a) A permit issued by the U.S. army corps of engineers or an approved state under section 404 of the federal water pollution control act, 33 U.S.C. §1344.

(b) A permit issued by the U.S. army corps of engineers under section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413.

(c) In the case of U.S. army corps of engineers civil works projects, the administrative equivalent of the permits referred to in subdivisions (a) and (b) of this subrule, as provided for in the U.S. army corps of engineers regulations.

(13) The provisions of 40 C.F.R. §261.38, part 280, and part 761 are adopted by reference in R 299.11003.

History: 1985 AACCS; 1988 AACCS; 1994 AACCS; 1996 AACCS; 2000 AACCS; 2004 AACCS; 2008 AACCS.

R 299.9205 Special requirements for hazardous waste generated by conditionally exempt small quantity generators.

Rule 205. (1) A generator is a conditionally exempt small quantity generator if, in a calendar month, any of the following provisions apply:

(a) He or she generates less than or equal to 100 kilograms of hazardous waste in that month and does not accumulate, at any time, more than a total of 1,000 kilograms of hazardous wastes.

(b) He or she generates or accumulates, at any time, acute hazardous waste in quantities less than or equal to the following:

(i) A total of 1 kilogram of acute hazardous wastes that are listed in table 203a, 204a, 204b, or 205a of these rules.

(ii) A total of 100 kilograms of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill into water or on any land of any acute hazardous waste that is listed in table 203a, 204a, 204b, or 205a of these rules.

(c) He or she generates or accumulates, at any time, waste that satisfies the criteria of the characteristic of severe toxicity pursuant to R 299.9212(5) in quantities less than or equal to 1 kilogram.

(2) Except as provided in subrules (3), (4), (6), and (7) of this rule, a conditionally exempt small quantity generator's hazardous wastes are not subject to regulation pursuant to parts 3 to 10 of these rules if the generator complies with the following requirements:

(a) The waste evaluation requirements specified in R 299.9302.

(b) Either treats or disposes of his or her hazardous waste in an on-site facility or ensures delivery to a facility that will store, treat, or dispose of the waste. If the facility is located in the United States, it shall be in compliance with 1 of the following requirements:

(i) Be permitted or licensed pursuant to part 111 of the act for that waste type or be operating pursuant to R 299.9502(3), (4), or (5).

(ii) Be a facility that stores or treats the waste and which is in compliance with the applicable requirements of parts 31, 55, and 115 of the act.

(iii) Be a disposal facility that is in compliance with the applicable requirements of parts 31, 55, and 115 of the act.

(iv) Be a facility that beneficially uses or reuses, or legitimately recycles or reclaims, the waste or treats the waste before the beneficial use or reuse or legitimate recycling or reclamation.

(v) Be an off-site publicly owned treatment works, if the waste is in compliance with all federal, state, and local pretreatment requirements and, if the waste is shipped by vehicle, the conditions of R 299.9503(3)(b) are met.

(vi) Be in another state and be permitted or licensed pursuant to 40 C.F.R. part 270.

(vii) Be in another state and be in interim status pursuant to 40 C.F.R. parts 270 and 265.

(viii) Be in another state and be authorized to manage hazardous waste by the state pursuant to a hazardous waste management program that is approved pursuant to 40 C.F.R. part 271.

(ix) Be in another state and be permitted, licensed, or registered by that state to manage municipal waste which, if managed in a municipal waste landfill, is subject to 40 C.F.R. part 258.

(x) Be in another state and be permitted, licensed, or registered by that state to manage nonmunicipal waste which, if managed in a nonmunicipal waste disposal unit after the effective date of these rules, is subject to 40 C.F.R. §§257.5 to 257.30.

(xi) For universal waste managed pursuant to R 299.9228, be a universal waste handler or destination facility in compliance with R 299.9228.

(c) Accumulates waste in an area where the waste is protected from weather, fire, physical damage, and vandals.

(d) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(3) If a generator exceeds the generation or accumulation limits, or both, specified in subrule (1) of this rule, then the generator and all of the accumulated hazardous wastes are subject to the following provisions:

(a) For wastes other than acute or severely toxic hazardous wastes, the special provisions of part 3 of these rules that are applicable to generators that generate between 100 kilograms and 1,000 kilograms of hazardous waste in a calendar month and the other applicable requirements of these rules. The time period specified in R 299.9306 for the accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes are more than 1,000 kilograms.

(b) For waste types specified in subrule (1)(b) or (c), or both, of this rule, the requirements of part 3 of these rules that are applicable to generators that generate 1,000 kilograms or more of hazardous waste per calendar month and the other applicable requirements of these rules. The time period specified in R 299.9306 for the accumulation of wastes on-site begins for a conditionally exempt small quantity generator when the accumulated wastes exceed 1 or more of the limits specified in subrule (1)(b) or (c) of this rule.

(4) If a person other than the conditionally exempt small quantity generator accumulates hazardous waste generated by a conditionally exempt small quantity generator, then the person and all of the accumulated hazardous wastes shall be in compliance with the following requirements:

(a) If the quantity of hazardous wastes, other than acute or severely toxic hazardous wastes, accumulated on-site is more than 1,000 kilograms, the following requirements:

(i) Place the waste in containers and comply with 40 C.F.R. part 265, subpart I, except for §265.176, and the containment requirements of 40 C.F.R. §264.175.

(ii) Place the waste in tanks and comply with 40 C.F.R. §265.201 and the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.

(iii) Clearly mark the date upon which each period of accumulation begins and the hazardous waste number of the waste on each container so that the information is visible for inspection.

(iv) Ensure that while the waste is being accumulated on-site, each waste container and tank is marked clearly with the words "hazardous waste."

(v) Comply with 40 C.F.R. part 265, subpart C.

(vi) Ensure that, at all times, there is at least 1 employee either on the premises or on call who is responsible for coordinating all emergency response measures. The employee is the emergency coordinator and, if on call, shall be available to respond to an emergency by reaching the facility within a short period of time.

(vii) Post, next to the telephone, the name and telephone number of the emergency coordinator; the location of fire extinguishers and spill control material and, if present, fire alarm; and the telephone number of the fire department, unless the facility has a direct alarm.

(viii) Ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(ix) Ensure that the emergency coordinator or his or her designee responds to any emergencies that arise. An emergency coordinator shall respond as follows:

(A) If there is a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

(B) If there is a spill, contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soils.

(C) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. For releases that could threaten human health outside the individual site of generation and spills that have reached surface waters, the person shall also immediately notify the national response center at its 24-hour, toll-free number - 800-424-8802. The notifications shall include all of the following information:

(1) The name and telephone number of the person who is reporting the incident.

(2) The name, address, telephone number, and site identification number of the person accumulating the waste.

(3) The date, time, and type of incident.

(4) The name and quantity of the material or materials involved and released.

(5) The extent of injuries, if any.

(6) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.

(7) An assessment of actual or potential hazards to human health or the environment.

(8) The immediate response action taken.

(x) Ensure that the area where the waste is accumulated is protected from weather, fire, physical damage, and vandals.

(xi) Ensure that waste accumulation is conducted so hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(xii) Except as otherwise noted in this paragraph, ensure that waste is not accumulated on-site for a period of more than 180 days before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 180-day accumulation period, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities. Municipal household waste collection programs may accumulate conditionally exempt small quantity generator waste on-site for not more than 1 year.

(xiii) Ensure that the volume of waste being accumulated on-site is not more than 6,000 kilograms before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 6,000-kilograms accumulation limit, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities.

(xiv) Within 15 days after accumulating 1,000 kilograms or more of waste, provide the department with a 1-time written notification unless the person already has an site identification number. The notification shall include all of the following information:

(A) The names, addresses, and telephone numbers of the owner and operator of the accumulation site.

(B) The name, address, and telephone number of the accumulation site.

(C) The type of waste accumulated at the site.

(D) The quantity of each waste accumulated at the site.

(b) If the quantity of acute or severely toxic hazardous wastes accumulated on-site is more than the limits specified in subrule (1)(b) or (c) of this rule, the following requirements:

(i) Place the waste in containers and comply with 40 C.F.R. part 265, subpart I, except for §265.176, and the containment requirements of 40 C.F.R. §264.175.

(ii) Place the waste in tanks and comply with 40 C.F.R. §265.201 and the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.

(iii) The requirements specified in R 299.9205(4)(a)(iii) to (xi).

(iv) Except as otherwise provided in this paragraph, ensure that waste is not accumulated on-site for a period of more than 90 days before being recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person exceeds the 90-day accumulation period, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities. Municipal household waste collection programs may accumulate conditionally exempt small quantity generator acute or severely toxic hazardous waste on-site for not more than 1 year.

(v) Ensure that the volume of waste being accumulated on-site is not more than the limits specified in subrule (1)(b) or (c) of this rule before the waste is recycled, treated, or disposed of pursuant to subrule (2) of this rule. If the person, except for a municipal household waste collection program, exceeds the accumulation limits specified in subrule (1)(b) or (c) of this rule, then the person and all of the accumulated waste are subject to the requirements for owners or operators of hazardous waste management facilities.

(vi) Notify the department, in writing, within 15 days after accumulating quantities of waste that exceed the limits specified in subrule (1)(b) or (c) of this rule. The notification shall include all of the following information:

(A) The names, addresses, and telephone numbers of the owner and operator of the accumulation site.

(B) The name, address, and telephone number of the accumulation site.

(C) The type of waste accumulated at the site.

(D) The quantity of each waste accumulated at the site.

(5) When making the quantity determinations of this rule and part 3 of these rules, the generator shall include all hazardous waste that he or she generates, except the hazardous waste that meets any of the following criteria:

(a) Is exempt from regulation pursuant to R 299.9204(3) to (11), R 299.9206(3), or R 299.9207(1).

(b) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment units as defined in part 1 of these rules.

(c) Is removed from on-site storage.

(d) Is hazardous waste produced by on-site treatment, including reclamation, of his or her hazardous waste if the hazardous waste that is treated was counted once.

(e) Is recycled, without prior storage or accumulation, only in an on-site process that is subject to regulation pursuant to R 299.9206(1)(c).

(f) Are spent materials that are generated, reclaimed, and subsequently reused on-site, if the spent materials have been counted once.

(g) Is used oil and managed pursuant to R 299.9206(4) and R 299.9809 to R 299.9816.

(h) Are spent lead-acid batteries managed pursuant to R 299.9804.

(i) Is universal waste managed pursuant to R 299.9228.

(6) Hazardous waste subject to the reduced requirements of this rule may be mixed with nonhazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this rule, unless the mixture meets any of the characteristics of hazardous wastes identified in R 299.9212.

(7) If a person mixes a waste with a hazardous waste that exceeds a quantity exclusion level of this rule, then the mixture is subject to full regulation.

(8) If a conditionally exempt small quantity generator's wastes are mixed with used oil, then the mixture is subject to the applicable requirements of R 299.9809 to R 299.9816. Any material produced from the mixture of by processing, blending, or other treatment is also subject to the applicable requirements of R 299.9809 to R 299.9816. Mixtures of a conditionally exempt small quantity generator's halogenated hazardous waste listed under R 299.9213 or R 299.9214 and used oil are subject to regulation as a hazardous waste.

History: 1985 AACs; 1988 AACs; 1991 AACs; 1994 AACs; 1996 AACs; 1998 AACs; 2004 MR 24, Eff. Dec. 16, 2004.

R 299.9206 Requirements for recyclable materials.

Rule 206. (1) Except as provided in subrules (2) to (5) of this rule, recyclable materials are subject to all of the following requirements:

(a) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 3 and 4 of these rules.

(b) Owners or operators of facilities that store recyclable materials before they are recycled are regulated pursuant to all applicable provisions of parts 5, 6, 7, and 8 of these rules. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.

(c) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the identification number requirements of 40 C.F.R. §264.11 and the manifest requirements of R 299.9608. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.

(d) A hazardous waste management unit in which recyclable materials are recycled is subject to the requirements of 40 C.F.R. part 265, subparts AA and BB if the unit is located at a facility that is described in R 299.9601(3)(a) or (b), or the requirements of R 299.9630 and R 299.9631 if the unit is located at a facility subject to the permitting or licensing requirements specified in part 111 of the act and part 5 of these rules.

(2) The following recyclable materials are not subject to the requirements of this rule, but are regulated under the applicable provisions of parts 5 and 8 of these rules:

(a) Recyclable materials used in a manner that constitutes disposal.

(b) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated as incinerators pursuant to the provisions of part 6 of these rules.

(c) Recyclable materials from which precious metals are reclaimed.

(d) Spent lead-acid batteries that are being reclaimed.

(3) The following recyclable materials are not subject to regulation pursuant to part 111 of the act or these rules, except for the environmental and human health standards of R 299.9602 and the provisions of R 299.9809 to R 299.9816, as applicable:

(a) Industrial ethyl alcohol that is reclaimed, except that, unless otherwise provided in an international agreement as specified in the provisions of 40 C.F.R. §262.58, the following requirements apply:

(i) A person who initiates a shipment for reclamation in a foreign country, and any intermediary who arranges for the shipment, shall comply with the requirements applicable to a

primary exporter in the provisions of 40 C.F.R. §§262.53, 262.56(a)(1) to (4), (6), and (b), and 262.57, export such materials only with the consent of the receiving country and in conformance with the EPA acknowledgment of consent as defined in subpart E of 40 C.F.R. part 262, and provide a copy of the EPA acknowledgment of consent to the shipper to the transporter that transports the shipment for export.

(ii) A transporter that transports a shipment for export shall not accept a shipment if he or she knows that the shipment does not conform to the EPA acknowledgment of consent, shall ensure that a copy of the EPA acknowledgment of consent accompanies the shipment, and shall ensure that it is delivered to the facility that is designated by the person who initiates the shipment.

(b) Scrap metal that is not excluded under R 299.9204(1)(p).

(c) Fuels produced from the refining of oil-bearing hazardous wastes together with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production, and transportation practices. This exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, if the recovered oil is already excluded under R 299.9204(1)(l).

(d) Hazardous waste fuel which is produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices or which is produced from oil that is reclaimed from the hazardous wastes, where the hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil if the resulting fuel is in compliance with the used oil specification set forth in R 299.9809(1)(f) and if other hazardous wastes are not used to produce the hazardous waste fuel.

(e) Hazardous waste fuel that is produced from oil-bearing hazardous waste which results from petroleum refining production and transportation practices if the hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed and if the fuel is in compliance with the used oil fuel specification set forth in R 299.9809(1)(f).

(f) Oil which is reclaimed from oil-bearing hazardous wastes that result from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, if the reclaimed oil is in compliance with the used oil fuel specification set forth in R 299.9809(1)(f).

(g) Textiles, including shop towels, rags, gloves, uniforms, linens, mops, and wipers, that are being recycled in a manner other than being burned for energy recovery or used in a manner constituting disposal if both of the following conditions are met:

(i) After the textile's original use, hazardous waste is not mixed with the textile.

(ii) The textiles and the containers used to transport the textiles do not contain any free liquids.

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to regulation pursuant to part 111 of the act or these rules, except for the environmental and human health standards outlined in the provisions of R 299.9602 and the provisions of R 299.9809 to R 299.9816. Used oil that is recycled includes any used oil that is reused, after its original use, for any purpose. Used oil includes, but is not limited to, oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) An owner or operator of a facility that stores electric lamps which meet the definition of a hazardous waste before recycling the lamps at the facility shall comply with all of the following requirements:

(a) Submit a written notification of hazardous waste electric lamp storage activity to the director. The notification shall include all of the following information:

(i) The name, mailing address, and telephone number of the owner.

(ii) The name, mailing address, and telephone number of the operator.

(iii) The name, mailing address, location, and telephone number of the recycle facility.

(iv) A description of the unit or units in which the electric lamps are managed on-site before recycling and a map that shows the location of the unit or units.

(b) Obtain an identification number for the facility from the director.

- (c) The environmental and human health standards pursuant to the provisions of R 299.9602.
- (d) The location standards pursuant to the provisions of R 299.9603.
- (e) The facility design and operating standards pursuant to the provisions of R 299.9604.
- (f) The handling requirements of R 299.9228(4)(c).
- (g) Ensure that facility personnel are trained with respect to proper hazardous waste handling and preparedness and prevention procedures and are familiar with the facility emergency procedures.
- (h) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the owner or operator has knowledge that a spill has reached surface water or groundwater, then the owner or operator shall immediately notify the department's pollution emergency alerting system telephone number 800-292-4706, or the department's district office for which the facility is located. The notification shall include all of the following information:
 - (i) The name and telephone number of the person who is reporting the incident.
 - (ii) The name, address, telephone number, and identification number of the facility.
 - (iii) The date, time, and type of incident.
 - (iv) The name and quantity of the material or materials involved and released.
 - (v) The extent of injuries, if any.
 - (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
 - (vii) An assessment of actual or potential hazards to human health or the environment.
 - (viii) The immediate response action taken.
- (i) The area where the electric lamps are accumulated shall be protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.
- (j) Electric lamp accumulation shall be conducted so that fugitive emissions are not in violation of the provisions of part 55 of the act.
- (k) A written operating record shall be maintained on-site by the owner or operator and shall contain all of the following information:
 - (i) The quantity of electric lamps received on-site during the calendar year.
 - (ii) The quantity of electric lamps recycled at the facility during the calendar year.
 - (iii) The documentation necessary to demonstrate that the electric lamps are not being stored on-site for more than 1 year.
- (l) The closure standards of 40 C.F.R. §§264.111 and 264.114.
- (m) The provisions of R 299.9614 if the electric lamps are being stored in containers and the provisions of R 299.9615 if the electric lamps are being stored in tanks.
- (n) The electric lamps shall not be stored on-site for more than 1 year from the date that the owner or operator receives the electric lamps.
- (o) Any hazardous waste that is generated from the electric lamp recycle operation is subject to the provisions of parts 2 to 7 of these rules.
- (6) Hazardous waste that is exported to or imported from designated member countries of the organization for economic cooperation and development, as defined in 40 C.F.R. §262.58(a)(1), for the purpose of recovery is subject to the requirements of R 299.9312 if the hazardous waste is either a federal hazardous waste subject to the manifesting requirements of part 3 of these rules or is a universal waste subject to the provisions R 299.9228.
- (7) The provisions of 40 C.F.R. §§264.11, 264.111, and 264.114, and part 265, subparts AA and BB, are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2000 MR 14, Eff. Sept. 11, 2000.

R 299.9207 Residues of hazardous waste in empty containers.

Rule 207. (1) Any hazardous waste that remains in either an empty container or an inner liner which is removed from an empty container, as explained in subrules (3), (4), and (5) of this rule, is not subject to regulation pursuant to the provisions of parts 3 to 10 of these rules.

(2) Any hazardous waste in either a container that is not empty or an inner liner which is removed from a container that is not empty, as explained in subrule (3), (4), or (5) of this rule, is subject to regulation pursuant to these rules.

(3) A container or an inner liner which is removed from a container that has held any hazardous waste, except for a waste which is a compressed gas, which is identified as an acute hazardous waste listed in table 203a, 204a, 204b, or 205a of this part, or which is a severely toxic hazardous waste, is empty if both of the following conditions are met:

(a) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, such as pouring, pumping, and aspirating.

(b) Not more than 2.5 centimeters (1 inch) of residue remain on the bottom of the container or inner liner or either of the following conditions is met:

(i) Not more than 3% by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size.

(ii) Not more than 0.3% by weight of the total capacity of the container remains in the container or inner liner if the container is more than 119 gallons in size.

(4) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

(5) A container or an inner liner that is removed from a container which has held an acute hazardous waste that is listed in table 203a, 204a, 204b, or 205a of this part or that is a severely toxic hazardous waste is empty if any of the following criteria are met:

(a) The container or inner liner has been triple rinsed using a solvent that is capable of removing the commercial chemical product or manufacturing chemical intermediate.

(b) The container or inner liner has been cleaned by another method that has been shown, in scientific literature or by tests conducted by the generator, to achieve equivalent removal.

(c) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.

(d) In the case of a container or inner liner that has held a pharmaceutical formulation that is an acute hazardous waste listed solely for a hazardous waste characteristic and the formulation in the container or inner liner does not exhibit the characteristic for which the waste was listed, the container or inner liner is empty if the requirements of subrule (3) of this rule are met.

History: 1985 AACS; 1988 AACS; 1994 AACS; 2008 AACS.

R 299.9208 Criteria for identifying characteristics of hazardous waste.

Rule 208. (1) The director shall identify and define a characteristic of hazardous waste in this part upon finding that the administrator has identified the characteristic based on the criteria contained in the provisions of 40 C.F.R. §261.10.

(2) The director shall identify and define a characteristic of hazardous waste in this part in addition to those identified by the administrator in the provisions of 40 C.F.R. part 261, subpart C, upon determining that the waste that exhibits the characteristic does either of the following:

(a) Exhibits extreme toxicity to aquatic life.

(b) Contains a substance which can statistically be shown to cause acutely toxic; carcinogenic; teratogenic; hereditary mutagenic; or severe, debilitating, irreversible, adverse

effects to mammals when exposed, by oral, dermal, or inhalation route, once or repeatedly to levels of 100 parts per billion or less.

(3) The provisions of 40 C.F.R. §261.10 are adopted by reference in R 299.11003.

History: 1985 AACS.

R 299.9209 Criteria and procedure for listing hazardous wastes.

Rule 209. (1) The director shall list a waste as a hazardous waste in this part upon finding that the administrator has listed the waste as hazardous based on the criteria contained in the provisions of 40 C.F.R.-261.11.

(2) The director shall evaluate a waste for listing as a hazardous waste in this part, in addition to the wastes listed by the administrator in the provisions of 40 C.F.R. part 261, subpart D, upon determining that the waste meets any of the following criteria:

(a) The waste meets a characteristic identified in R 299.9208.

(b) The waste, or a material that could be a constituent of the waste, is hazardous pursuant to the provisions of section 3 of part 111 of the act, but is not currently listed in this part.

(3) If information becomes available that indicates that a waste, or a material that may be a component of wastes, might meet any of the criteria of subrule (2) of this rule, then the director shall do the following:

(a) Evaluate the characteristics of the waste or material to verify its hazards.

(b) If the waste is determined to have hazardous characteristics, initiate rule change procedures as outlined in act 306 that will lead to the listing of the waste as hazardous. In addition, the director shall request the governor to petition the administrator to add the waste to the listings in the provisions of 40 C.F.R. part 261 pursuant to the authority of section 3001(c) of RCRA.

(4) As additional wastes are determined to be hazardous by the administrator and listed in the provisions of 40 C.F.R. part 261, the director shall initiate rule change procedures as outlined in act 306 to incorporate the wastes into these rules.

(5) The basis for listing the classes or types of waste specified in this part shall be designated by 1 or more of the following hazard codes:

(a) For ignitable waste, (I).

(b) For corrosive waste, (C).

(c) For reactive waste, (R).

(d) For toxicity characteristic waste, (E).

(e) For acute hazardous waste, (H).

(f) For toxic waste, (T).

(6) The constituents that were the basis for listing the waste as toxicity characteristic waste (E) or toxic waste (T) in R 299.9220 and R 299.9222 are identified in the provisions of 40 C.F.R. part 261, appendix VII.

(7) The provisions of 40 C.F.R. -261.11 and 40 C.F.R. part 261, appendix VII, are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1998 AACS; 2000 AACS.

R 299.9210 Removal from hazardous waste listings.

Rule 210. (1) A petition may be made to the director for removal from listing in this part any listed waste or hazardous waste constituent, except those determined by the administrator to be hazardous in the provisions of 40 C.F.R. part 261. The petition shall be accompanied by substantiating data and references taken from scientific literature which challenges the validity of the data which led to the waste or waste constituent listing. Data supplied shall be reviewed and

evaluated by the director. If the petition is granted, rule change procedures, as outlined in act 306, shall be initiated for delisting of the waste or constituent. If the petition is not granted, the director shall inform the generator of the reasons why within 180 days of receipt of such a petition.

(2) Pursuant to the provisions of 40 C.F.R. --260.20 and 260.22, a petition may be made to the EPA to remove from listing those wastes or constituents listed in the provisions of 40 C.F.R. part 261. When wastes are removed from the listing in the provisions of 40 C.F.R. part 261 by the EPA, the director shall initiate rule change procedures, as outlined in section 28 of part 111 of the act, to remove those wastes from the listing in R 299.9203.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9211 Petitions to exclude waste produced at particular facility.

Rule 211. (1) Any person seeking to exclude a waste at a particular generating facility from the lists in this part shall do the following:

(a) If the waste is listed in the provisions of 40 C.F.R. part 261, subpart D, contains a waste listed in subpart D, or is derived from a waste listed in subpart D and does not meet the criteria of paragraph (c) of this subrule, petition the administrator, under the provisions of 40 C.F.R. §§260.20 and 260.22, to exclude the waste at the particular generating facility from the lists. If the petition is granted by the administrator, the director shall do both of the following:

(i) Within 60 days of the redesignation by the administrator, request any information necessary to evaluate the petition.

(ii) Within 180 days of receiving all information necessary to evaluate the petition, redesignate the waste and impose any conditions on the redesignation necessary to protect human health and the environment.

(b) If the waste is listed in this part, but not listed in the provisions of 40 C.F.R. part 261, subpart D, petition the director to exclude the waste at the particular generating facility from the lists in the part. The petition shall include that information specified by the provisions of 40 C.F.R. §260.22(i) and shall demonstrate that either the waste does not contain hazardous constituents or that the waste does contain hazardous constituents, but is not capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed, considering the factors listed in the provisions of 40 C.F.R. § 261.11(a)(3). After receiving a petition for an exclusion, the director shall do both of the following:

(i) Within 60 days of receiving a petition for an exclusion, request any information necessary to evaluate the petition.

(ii) Within 180 days of receiving all information necessary to evaluate the petition, either approve the petition with any conditions necessary to protect human health and the environment or deny the petition.

(c) If the waste is treated, stored, or disposed of as part of closure or partial closure of a treatment, storage, or disposal facility or if the waste is contaminated soil deemed hazardous under R 299.9203(1) or R 299.9214 due to its mixture with a hazardous waste, petition the director to exclude the waste at the particular facility from regulation under these rules. The petition shall contain that information specified in 40 C.F.R. §§260.20(b) and 260.22. After receiving a complete petition under subrule (3) of this rule, the director shall do all of the following:

(i) Make a tentative decision to grant or deny the petition based on the criteria specified in 40 C.F.R. §260.22.

(ii) Public notice the tentative decision and provide 30 days for public comment.

(iii) After evaluating all public comments, make a final decision on the petition. The director shall grant the petition if the criteria specified in 40 C.F.R. §260.22 are met.

(2) Noncompliance with any conditions imposed under subrule (1) of this rule or any change of constituents, physical state, conditions of the generating process, or other variation which would increase the hazardous characteristics of the waste is a basis for the director to amend or revoke the delisting under act 306.

(3) Wastes for which petitions are under consideration shall be managed as required by these rules until such time that a redesignation is granted.

(4) The provisions of 40 C.F.R. §§260.20, 260.22, 260.31, and 261.11(a)(3) are adopted by reference in R 299.11003, with the exception that the word "director" shall replace the word "administrator."

History: 1985 AACS; 1988 AACS; 1989 AACS.

R 299.9212 Characteristics of hazardous waste.

Rule 212. (1) A waste exhibits the characteristic of ignitability and is identified by the hazardous waste number D001 if a representative sample of the waste has any of the following properties:

(a) It is a liquid, other than an aqueous solution produced by a kraft pulp or paper mill that contains less than 24% alcohol by volume or an aqueous solution that contains less than 24% alcohol, by volume, as defined by section 211.117(a)(5) to (7) of the Internal Revenue Code, 27 U.S.C. §211.117(a)(5) to (7), including distilled spirits, wine, and malt beverages, and has a flash point less than 60 degrees Centigrade (140 degrees Fahrenheit), as determined by any of the following test methods:

(i) A Pensky-Martens closed cup tester using the test method specified in ASTM standard D-93-79 or D-93-80, both of which are adopted by reference in R 299.11001.

(ii) A setaflash closed cup tester using the test method specified in ASTM standard D-3278-78, which is adopted by reference in R 299.11001.

(iii) A standard test method for flash point by continuously closed cup tester using the test method specified in ASTM standard D6450-99, which is adopted by reference in R 299.11001.

(iv) An equivalent test method approved by the director, or his or her designee, pursuant to procedures set forth in R 299.9215.

(b) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture, or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

(c) It is an ignitable compressed gas as defined in 40 C.F.R. §261.21(a)(3) and meets the criteria specified therein.

(d) It is an oxidizer as defined in 49 C.F.R. §173.127, which is adopted by reference in R 299.11004.

(2) A waste exhibits the characteristic of corrosivity and is identified by the hazardous waste number D002 if a representative sample of the waste has either of the following properties:

(a) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using method 9040C in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.

(b) It is a liquid and corrodes steel (SAE 1020) at a rate of more than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees Centigrade (130 degrees Fahrenheit) as determined by method 1110A in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.

(3) A waste exhibits the characteristic of reactivity and is identified by the hazardous waste number D003 if a representative sample of the waste has any of the following properties:

(a) It is normally unstable and readily undergoes violent change without detonating.

(b) It reacts violently with water.

(c) It forms potentially explosive mixtures with water.

(d) When mixed with water, it generates toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

(e) It is a cyanide or sulfide-bearing waste that, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors, or fumes in a quantity sufficient to present a danger to human health or the environment.

(f) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.

(g) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

(h) It is a forbidden explosive as defined in 49 C.F.R. §173.54, or it meets the definition of a class 1/division 1.1, 1.2, or 1.3 explosive as defined in 49 C.F.R. §173.50, which is adopted by reference in R 299.11004.

(4) A waste, except manufactured gas plant waste, exhibits the toxicity characteristic if, using the toxicity characteristic leaching procedure, test Method 1311 in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005, the extract from a representative sample of the waste contains any of the contaminants listed by the administrator or the director and identified in table 201a of these rules at a concentration equal to or greater than the respective values given in the tables. If the waste contains less than 0.5% filterable solids, then the waste itself, after filtering using the methodology outlined in method 1311, is considered to be the extract for the purposes of this rule.

(5) A waste exhibits the characteristic of severe toxicity if the waste contains 1 part per million or more of a severely toxic substance listed in table 202.

(6) A hazardous waste that is identified by a characteristic in this rule shall be assigned every hazardous waste number that is applicable. The hazardous waste number or numbers shall be used in complying with the notification, recordkeeping, and reporting requirements of these rules. The hazardous waste numbers are as follows:

(a) For wastes determined to be hazardous pursuant to subrules (4) and (5) of this rule, the hazardous waste number listed in table 201a or table 202 of these rules.

(b) For a waste that exhibits the characteristic of ignitability, the hazardous waste number D001.

(c) For a waste that exhibits the characteristic of corrosivity, the hazardous waste number D002.

(d) For a waste that exhibits the characteristic of reactivity, the hazardous waste number D003.

(7) For the purposes of this rule, the director, or his or her designee, shall consider a sample that is obtained using any of the applicable sampling methods specified in 40 C.F.R. part 261, appendix I, which is adopted by reference in R 299.11003, to be a representative sample.

(8) The following test methods shall be used:

(a) For aflatoxin, the test methods set forth in subsection 26, natural poisons, of the publication entitled "Official Methods of Analysis of the Association of Official Analytical Chemists," 13th edition, 1980, which is adopted by reference in R 299.11006.

(b) For chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in chemical wastes, including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soil, EPA method 8280 in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," which is adopted by reference in R 299.11005.

- (c) Alternate procedures as approved by the director or his or her designee.
- (9) The provisions of 40 C.F.R. §261.21(a)(3) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2004 AACS; 2008 AACS.

R 299.9213 Lists of hazardous wastes from nonspecific and specific sources.

Rule 213. (1) The following wastes are hazardous wastes unless excluded pursuant to the provisions R 299.9211:

(a) Wastes from nonspecific sources listed by the administrator and identified in table 203a of these rules.

(b) Wastes from nonspecific sources listed by the director and identified in table 203b of these rules.

(c) Wastes from specific sources listed by the administrator and identified in table 204a of these rules.

(d) Wastes from specific sources listed by the director and identified in table 204b of these rules.

(2) Each hazardous waste that is listed in subrule (1) of this rule is assigned a hazardous waste number which precedes the name of the waste on the table in which it is listed. The number shall be used in complying with the notification requirements and the recordkeeping and reporting requirements of these rules.

(3) The EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 are subject to the exclusion limits for acutely hazardous wastes established in R 299.9205.

(4) For the purposes of the EPA hazardous waste numbers F037 and F038 listings, aggressive biological treatment units are defined as those units that employ 1 of the following 4 treatment methods:

(a) Activated sludge.

(b) Trickling filter.

(c) Rotating biological contactor for the continuous accelerated biological oxidation of wastewaters.

(d) High-rate aeration. High-rate aeration is a system of surface impoundments or tanks in which intense mechanical aeration is used to completely mix the wastes and enhance biological activity. High-rate aeration systems shall be composed of units that employ a minimum of 6 horsepower per million gallons of treatment volume and either the hydraulic retention time of the unit is no longer than 5 days, or the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is hazardous waste by the toxicity characteristic.

(5) Generators and facility owners and operators shall demonstrate that their sludges are not subject to being listed as F037 or F038, or both, wastes pursuant to the provisions of subrule (4) of this rule. Generators and facility owners and operators shall maintain, in their operating or other on-site records, documents and data sufficient to demonstrate that the unit is an aggressive biological treatment unit as defined in subrule (4) of this rule and that the sludges sought to be exempted from the definitions of F037 or F038, or both, wastes were actually generated in the aggressive biological treatment unit.

(6) For the purposes of the EPA hazardous waste number F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(7) For the purposes of the EPA hazardous waste number F038 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement, and floats are considered to be generated at the moment they are formed in the top of the unit.

History: 1985 AACS; 1988 AACS; 1994 AACS.

R 299.9214 Discarded commercial chemical products, off-specification species, containers, container residues, and spill residues as hazardous wastes.

Rule 214. (1) The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in R 299.9202(1)(a), when they are burned for energy recovery instead of their original intended use, when they are used to produce fuels instead of their intended use, when they are applied to the land instead of their intended use, or when they are contained in products that are applied to the land instead of their original intended use:

(a) Any commercial chemical product or manufacturing chemical intermediate having the generic name in tables 205a, 205b, and 205c of these rules.

(b) Any off-specification commercial chemical product or manufacturing intermediate which, if it met specifications, would have the generic name listed in tables 205a, 205b, and 205c of these rules.

(c) Any residue that remains in a container or in an inner liner which is removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic names listed in tables 205a, 205b, and 205c of these rules, unless the container is empty as defined in R 299.9207.

(d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into any water or on any land of any commercial chemical product, a manufacturing chemical intermediate having the generic name listed in tables 205a, 205b, and 205c of these rules, any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into any water or on any land of any off-specification chemical product, and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in tables 205a, 205b, and 205c of these rules.

(2) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed by the administrator and identified in table 205a are acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in R 299.9205.

(3) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed by the administrator and identified in table 205b are toxic wastes (T) and are subject to the small quantity exclusion defined in R 299.9205.

(4) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed in table 205c of these rules have been determined to be hazardous by the director, are identified as toxic wastes (T), and are subject to the small quantity exclusion defined in R 299.9205(1).

(5) As used in subrule (1) of this rule, the phrases "commercial chemical product," "manufacturing chemical intermediate," "off-specification commercial chemical product," and "manufacturing chemical intermediate" refer to materials that are manufactured or formulated for commercial or manufacturing use. The phrases do not refer to materials, such as manufacturing process wastes, that contain any of the substances listed in table 205a, 205b, or 205c of these rules.

(6) Each hazardous waste listed in subrule (1) of this rule is assigned the hazardous waste number in table 205a, 205b, or 205c of these rules that corresponds to the constituent which caused the waste to be hazardous. With regard to a mixture of hazardous wastes, a number shall be assigned in the following priority order based upon the wastes or constituents present:

(a) Acutely hazardous, from table 205a.

(b) Toxic, from table 205b.

(c) Toxic, from table 205c of these rules. If the constituents are listed in the same table, the number assigned shall correspond to the constituents present in the greatest amount on a weight basis.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1991 AACS; 1996 AACS.

R 299.9215 Petitions for equivalent testing or analytical methods.

Rule 215. (1) Any person seeking to add a testing or analytical method to these rules may petition the director for a rules change under this rule. To be successful, the person shall demonstrate, to the satisfaction of the director, that the proposed method is equal to or superior to the corresponding method prescribed in the provisions of 40 C.F.R. part 261, 264, or 265 of these rules in terms of its sensitivity, accuracy, and precision.

(2) Each petition under this rule shall contain that information required by the provisions of 40 C.F.R. §§260.20(b) and 260.21(b).

(3) After receiving a petition for an equivalent method, the director, or his or her designee, shall, within 120 days of receiving the petition, request any additional information on the proposed method which he or she may reasonably require to evaluate the method. If the petition is granted, the director shall initiate rule change procedures under act 306.

(4) The provisions of 40 C.F.R. §§260.20(b) and 260.21(b) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS.

R 299.9216 Method of analysis.

Rule 216. (1) The method of analysis specified in the provisions of appendix III of 40 C.F.R. part 261 shall be used to identify the hazardous constituents listed in appendices VII and VIII of 40 C.F.R. part 261. Alternate methods of analysis may be used if approved by the director.

(2) The provisions of 40 C.F.R. part 261, appendices III, VII, and VIII are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS.

R 299.9217 Table 201a.

Rule 217. Table 201a reads as follows:

Table 201a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
D004	7440-38-2	Arsenic	5.0
D005	7440-39-3	Barium	100.0
D018	71-43-2	Benzene	0.5
D006	7440-43-9	Cadmium	1.0
D019	56-23-5	Carbon tetrachloride	0.5
D020	57-74-9	Chlordane	0.03

D021	108-90-7	Chlorobenzene	100.0
D022	67-66-3	Chloroform	6.0
D007	7440-47-3	Chromium	5.0
D023	95-48-7	o-Cresol	200.0**
D024	108-39-4	m-Cresol	200.0**
D025	106-44-5	p-Cresol	200.0**
D026	----	Cresol	200.0**
D016	94-75-7 2,4-D	(2,4-Dichlorophenoxyacetic Acid)	10.0
D027	106-46-7	1,4-Dichlorobenzene	7.5
D028	107-06-2	1,2-Dichloroethane	0.5
D029	75-35-4	1,1-Dichloroethylene	0.7
D030	121-14-2	2,4-Dinitrotoluene	0.13*
D012	72-20-8	Endrin (1,2,3,4,10,10-hexachloro-1,7-Epoxy-1,4,4a,5,6,7,8,8a octahydro-1,4-endo, endo-5,8-dimethano naphthalene)	0.02
D031	76-44-8	Heptachlor (and its Epoxide)	0.008
D032	118-74-1	Hexachlorobenzene	0.13*
D033	87-68-3	Hexachlorobutadiene	0.5
D034	67-72-1	Hexachloroethane	3.0
D008	7439-92-1	Lead	5.0
D013	58-89-9	Lindane (1,2,3,4,5,6-hexa-chlorocyclohexane, gamma isomer)	0.4
D009	7439-97-6	Mercury	0.2
D014	72-43-5	Methoxychlor (1,1,1-trichloro-2,2-bis (p-methoxyphenyl)ethane)	10.0
D035	78-93-3	Methyl ethyl ketone	200.0
D036	98-95-3	Nitrobenzene	2.0
D037	87-86-5	Pentachlorophenol	100.0
D038	110-86-1	Pyridine	5.0*
D010	7782-49-2	Selenium	1.0
D011	7440-22-4	Silver	5.0
D039	127-18-4	Tetrachloroethylene	0.7
D015	8001-35-2	Toxaphene (C ₁₀ H ₁₀ C ₁₈ , Technical chlorinated camphene, 67-69 percent chlorine)	0.5
D040	79-01-6	Trichloroethylene	0.5
D041	95-95-4	2,4,5-Trichlorophenol	400.0
D042	88-06-2	2,4,6-Trichlorophenol	2.0
D017	93-72-1	2,4,5 TP Silvex (2,4,5-Tri-chlorophenoxypropionic acid)	1.0
D043	75-01-4	Vinyl chloride	0.2

* Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

**If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

History: 1985 AACS; 1988 AACS; 1994 AACS.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9219 Table 202.

Rule 219. Table 202 reads as follows:

Table 202

Michigan Hazardous Waste	
Number	Substance
001S	Aflatoxin
002S	2,3,7,8-Tetrachlorodibenzo-p-dioxin
003S	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
004S	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
005S	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
006S	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
007S	2,3,7,8-Tetrachlorodibenzo furan

History: 1985 AACS; 1988 AACS.

R 299.9220 Table 203a; hazardous waste from nonspecific sources.

Table 203a

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures and blends used in degreasing containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)

F002	<p>The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho- dichlorobenzene, trichlorofluoromethane and 1,1,2- trichloroethane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures</p>	(T)
F003	<p>The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures and blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures or blends, containing before use, one or more of the above nonhalogenated solvents, and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005 and still bottoms from the recovery of these spent solvents and spent solvent mixtures</p>	(I)
F004	<p>The following spent nonhalogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures</p>	(T)
F005	<p>The following spent nonhalogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures and blends containing, before use, a total of 10% or more, by volume, of one or more of the above nonhalogenated solvents or those solvents listed in F001, F002 and F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures</p>	(I,T)

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating used on a segregated basis on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc, and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating sludges from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process	(R,T)
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat-treating operations	(R,T)
F012	Quenching wastewater treatment sludges from metal heat-treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)

F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of pentachlorophenol or of intermediates used to produce its derivatives	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzenes under alkaline conditions	(H)
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F024	Process wastes, including, but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitutions. This listing does not include wastewater, wastewater treatment sludges, spent catalysts, and wastes listed in R 299.9213(1)(a) or R 299.9214(1)(a)	(T)
F025	Condensed light ends, spent filters and filter acids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)

F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 hazardous waste number deleted pursuant to 40 C.F.R. §261.35 or potentially cross-contaminated wastes that are otherwise currently regulated as F034 or F035, and where the generator does not resume or initiate the use of chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F034	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F035	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F037	<p>Petroleum refinery primary oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oil cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in R 299.9213(4), including sludges generated in 1 or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under R 299.9204(1)(1) if those residuals are being disposed.</p>	(T)
F038	<p>Petroleum refinery secondary (emulsified) oil/water/solids (oil and/or water and/or solids) separation sludge-any sludge or float generated from the physical or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in induced air flotation (IAF) units and tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow; sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters; sludges and floats generated in aggressive biological treatment units as defined in R 299.9213(4), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units; and F037, K048, and K051 wastes are not included in this listing.</p>	(T)

EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
F039	Leachate resulting from the treatment, storage, or disposal of wastes classified by more than 1 hazardous waste number pursuant to R 299.9213 and R 299.9214 or from a mixture of wastes classified pursuant to R 299.9213 and R 299.9214. Leachate resulting from the management of 1 or more of the following hazardous wastes, and no other hazardous wastes, retains its original hazardous waste number or numbers: F020, F021, F022, F023, F026, F027, or F028.	(T)

History: 1985 AACS; 1988 AACS; 1994 AACS; 1998 AACS; 2000 AACS; 2004 AACS.

R 299.9221 Table 203b.

Rule 221. Table 203b reads as follows:

Table 203b

Michigan Hazardous Waste Number	Hazardous Waste from Nonspecific Sources
	None

History: 1985 AACS; 1988 AACS.

R 299.9222 Table 204a; hazardous wastes from specific sources.

Rule 222. Table 204a reads as follows:

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
Wood Preservation	K001	Bottom sediment sludge from the treatment of wastewaters from wood-preserving processes that use creosote or pentachlorophenol, or both of these compounds	(T)
Inorganic Pigments	K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
	K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
	K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)

	K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
	K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated forms	(T)
	K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
	K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals	K009	Distillation bottoms from the production of chemicals acetaldehyde from ethylene	(T)
	K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
	K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
	K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
	K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
	K015	Still bottoms from the distillation of benzyl chloride	(T)
	K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
	K017	Heavy ends or still bottoms from the purification column in the production of enichlorohydrin	(T)
	K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
	K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
	K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer	(T)
	K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
	K022	Distillation bottom tars from the production of phenol or acetone from cumene	(T)
	K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
	K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
	K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
	K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
	K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)

	K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
	K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
	K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
	K083	Distillation bottoms from aniline production	(T)
	K085	Distillation of fractionation column bottoms from the production of	(T)
	K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
	K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
	K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
	K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
	K103	Process residues from aniline extraction from the production of aniline	(T)
	K104	Combined wastewater streams generated from nitrobenzene or aniline production	(T)
	K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
	K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)
	K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
	K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
	K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH)	(T)
	K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)	

	K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
	K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane	(T)
	K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.	(T)
	K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
	K151	Wastewater treatment sludges, excluding *neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)

K156	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
K157	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
K158	Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids, including filtration, evaporation, and centrifugation solids, bag house dust, and floor sweepings from the production of dithiocarbamates acids and their salts. This listing does not include K125 or K126.	(R,T)

	K174	<p>Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges meet the following conditions: (1) they are disposed of in a hazardous waste landfill or a nonhazardous waste landfill licensed or permitted by the state or federal government, (2) they are not otherwise placed on the land before final disposal, and (3) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of RCRA or part 111 of the act must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth herein. In doing so, they must provide appropriate documentation, such as contracts between the generator and the landfill owner/operator or invoices documenting delivery of the waste to the landfill, that the terms of the exclusion were met.</p>	(T)
	K175	<p>Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene- based process</p>	(T)

	K181	<p>Nonwastewaters from the production of dyes or pigments, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the K181 listing constituents identified in 40 C.F.R. §261.32(c) that are equal to or greater than the listing levels identified in 40 C.F.R. §261.32(c), as determined on a calendar year basis. These wastes shall not be considered hazardous if the nonwastewaters are managed in compliance with the requirements for this listing as outlined in of 40 C.F.R. §261.32(a). For the purposes of this listing, dyes or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or federal food and drug administration certified colors that are classified as azo, triarylmethane, perylene, or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes or pigments, are not included in this listing. The process for demonstrating that a facility's nonwastewaters are not K181 is contained in 40 C.F.R. §261.32(d). This K181 listing does not apply to wastes that are otherwise identified as hazardous waste under R 299.9212, R 299.9217, R 299.9220, R 299.9222, R 299.9224, or R 299.9225 at the point of generation. Also, the listing does not apply to the wastes generated before any annual mass loading limit is met.</p>	(T)
Inorganic Chemicals	K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
	K073	Chlorinated hydrocarbon wastes from the purification step of the diaphragm cell process using graphite anodes in chlorine	(T)
	K106	Wastewater treatment sludge from the mercury cell process in chlorine	(T)

	K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates	(E)
	K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates	(T)
	K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	(T)
Pesticides	K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
	K032	Wastewater treatment sludge from the production of chlordane	(T)
	K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
	K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
	K035	Wastewater treatment sludges generated in the production of creosote	(T)
	K036	Still bottoms from toluene reclamation distillation in the production of	(T)
	K037	Wastewater treatment sludges from the production of disulfoton	(T)
	K038	Wastewater from the washing and stripping of phorate production	(T)
	K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
	K040	Wastewater treatment sludge from the production of phorate	(T)
	K041	Wastewater treatment sludge from the production of toxaphene	(T)
	K042	Heavy ends of distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
	K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
	K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
	K098	Untreated process wastewater from the production of toxaphene	(T)

	K099	Untreated wastewater from the production of 2,4-D	(T)
	K123	Process wastewater, including supernates, filtrates, and washwaters, from the production of ethylenebisdithiocarbamic acid	(T)
	K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salt	(C,T)
	K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salt	(T)
	K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
	K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(C,T)
	K132	Spent absorbent and wastewater separator solids from the production of methyl	(T)
Explosives	K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(I)
	K045	Spent carbon from the treatment of wastewater containing explosives	(I)
	K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds	(T)
	K047	Pink or red water from TNT operations	(I)
Petroleum Refining	K048	Dissolved air floatation, DAF, float from the petroleum refining industry	(T)
	K049	Slop oil emulsion solids from the petroleum refining industry	(T)
	K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
	K051	API separator sludge from the petroleum refining industry	(T)
	K052	Tank bottoms, leaded, from the petroleum refining industry	(T)
	K169	Crude oil storage tank sediment from petroleum refining operations	(T)
	K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations	(T)

	K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
	K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
Iron and Steel	K061	Emission control dust or sludge from the primary production of steel in electric	(T)
	K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry	(C,T)
Primary Aluminum	K088	Spent potliners from primary aluminum reduction	(T)
Secondary Lead	K069	Emission control dust or sludge from secondary lead smelting. (This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further action is taken by the EPA and notice published in the Federal Register.)	(T)
	K100	Waste leaching solution from acid leaching of emission control dust sludge from secondary lead smelting	(T)
Veterinary Pharmaceuticals	K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink Formulation	K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers,	(T)
Coking	K060	Ammonia still lime sludge from coking operations	(T)
	K087	Decanter tank tar sludge from coking operations	(T)

K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087.	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
K147	Tar storage tank residues from coal tar refining	(T)
K148	Residues from coal tar distillation, including, but not limited to, still bottoms	(T)

History: 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9223 Table 204b.

Rule 223. Table 204b reads as follows:

Table 204b

Michigan Hazardous Waste Hazard Number Code	Hazardous Waste From Specific Sources	
001K	Residues, including emission control sludges, from the production process and packaging of 4,4'-Methylenebis (2-chloroaniline)	(T)
002K	Wash acids generated after the effective date of these rules from the production of 3,3'-Dichlorobenzidine and still bottoms	(T)

from the recovery of these acids, excluding wash acids that are recycled or any materials that are reclaimed from the wash acids and used beneficially

History: 1988 AACS; 1994 AACS.

R 299.9224 Table 205a; discarded commercial chemical products; off-specification species;

container residues; and spill residues thereof as acutely hazardous wastes.

Rule 224. Table 205a reads as follows:

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P023	107-20-0	Acetaldehyde, chloro-	
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-	
P057	640-19-7	Acetamide, 2-fluoro-	
P058	62-74-8	Acetic acid, fluoro-, sodium salt	
P002	591-08-2	1-Acetyl-2-thiourea	
P003	107-02-8	Acrolein	
P070	116-06-3	Aldicarb	
P203	1646-88-4	Aldicarb sulfone	
P004	309-00-2	Aldrin	
P005	107-18-6	Allyl alcohol	
P006	20859-73-8	Aluminum phosphide	(R,T,)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol	
P008	504-24-5	4-Aminopyridine	
P009	131-74-8	Ammonium picrate	(R)
P119	7803-55-6	Ammonium vanadate	
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium	
P010	7778-39-4	Arsenic acid	
P012	1327-53-3	Arsenic (III) oxide	
P011	1303-28-2	Arsenic (V) oxide	
P011	1303-28-2	Arsenic pentoxide	
P012	1327-53-3	Arsenic trioxide	
P038	692-42-2	Arsine, diethyl-	
P036	696-28-6	Arsonous dichloride, phenyl-	
P054	151-56-4	Aziridine	
P067	75-55-8	Aziridine, 2-methyl-	
P013	542-62-1	Barium cyanide	
P024	106-47-8	Benzenamine, 4-chloro-	
P077	100-01-6	Benzenamine, 4-nitro-	
P028	100-44-7	Benzene, (chloromethyl)-	
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-	(R)
P046	122-09-2	Benzeneethanamine, alpha, alpha-dimethyl-	
P014	108-98-5	Benzenethiol	
P127	1563-66-2	7-benzofuranol, 2,3-dihydro-2,2-dimethyl-	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		, methoycarbamate	
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis) - 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo [2,3-b] indol-5-yl methylcarbamate ester (1:1)	
P001	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%	
P028	100-44-7	Benzyl chloride	
P015	7440-41-7	Beryllium powder	
P017	598-31-2	Bromoacetone	
P018	357-57-3	Brucine	
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino) carbonyl] oxime	
P021	592-01-8	Calcium cyanide	
P021	592-01-8	Calcium cyanide Ca(CN) ₂	
P189	55285-14-8	Carbamic acid, [(dibutylamino)-thio]methyl-, 2,3-dihydro-2,2-dimethyl-7-benzofuranyl ester	
P191	644-64-4	Carbamic acid, dimethyl-, 1-[(dimethylamino)carbonyl]-5-methyl-1H-pyrazol-3-yl ester	
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H-pyrazol-5-yl ester	
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester	
P127	1563-66-2	Carbofuran	
P022	75-15-0	Carbon disulfide	
P095	75-44-5	Carbonyl chloride	
P189	55285-14-8	Carbosulfan	
P023	107-20-0	Chloroacetaldehyde	
P024	106-47-8	p-Chloroaniline	
P026	5344-82-1	1-(o-Chlorophenyl)thiourea	
P027	542-76-7	3-Chloropropionitrile	
P029	544-92-3	Copper cyanide	
P029	544-92-3	Copper cyanide Cu(CN)	
P202	64-00-6	m-Cumenyl methylcarbamate	
P030	-----	Cyanides (soluble cyanide salts), not elsewhere specified	
P031	460-19-5	Cyanogen	
P033	506-77-4	Cyanogen chloride	
P033	506-77-4	Cyanogen chloride (CN)Cl	
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol	

Table 205a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P016	542-88-1	Dichloromethyl ether	
P036	696-28-6	Dichlorophenylarsine	
P037	60-57-1	Dieldrin	
P038	692-42-2	Diethylarsine	
P041	311-45-5	Diethyl-p-nitrophenyl phosphate	
P040	297-97-2	0,0-Diethyl 0-pyrazinyl phosphorothioate	
P043	55-91-4	Diisopropyl fluorophosphate	
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5alpha,8alpha,8abeta)-	
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5beta,8beta,8abeta)-	
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta,7aalpha)-	
P051	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta,2abeta,3alpha, 6alpha,6abeta,7beta, 7aalpha)-, & metabolites	
P044	60-51-5	Dimethoate	
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	
P191	644-64-4	Dimetilan	
P047	534-52-1	4,6-Dinitro-o-cresol and salts	
P048	51-28-5	2,4-Dinitrophenol	
P020	88-85-7	Dinoseb	
P085	152-18-9	Diphosphoramidate, octamethyl-	
P111	107-49-3	Diphosphoric acid, tetraethyl ester	
P039	298-04-4	Disulfoton	
P049	541-53-7	2,4-Dithiobiuret	
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2-4-dimethyl-, O-[(methylamino)-carbonyl]oxime	
P050	115-29-7	Endosulfan	
P088	145-73-7	Endothall	
P051	72-20-8	Endrin	
P051	72-20-8	Endrin, and metabolites	
P042	51-43-4	Epinephrine	
P031	460-19-5	Ethanedinitrile	
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino)	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		carbonyl]oxy]-2-oxo-, methyl ester	
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamine)carbonyl] oxy]-, methyl ester	
P101	107-12-0	Ethyl cyanide	
P054	151-58-4	Ethyleneimine	
P097	52-85-7	Famphur	
P056	7782-41-4	Fluorine	
P057	640-19-7	Fluoroacetamide	
P058	62-74-8	Fluoroacetic acid, sodium salt	
P198	23422-53-9	Formetanate hydrochloride	
P197	17702-57-7	Formparanate	
P065	628-86-4	Fulminic acid, mercury (II) salt	(R,T)
P059	76-44-8	Heptachlor	
P062	757-58-4	Hexaethyl tetraphosphate	
P116	79-19-6	Hydrazinecarbothioamide	
P068	60-34-4	Hydrazine, methyl-	
P063	74-90-8	Hydrocyanic acid	
P063	74-90-8	Hydrogen cyanide	
P096	7803-51-2	Hydrogen phosphide	
P060	465-73-6	Isodrin	
P192	119-38-0	Isolan	
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate	
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-	
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,	
P196	15339-36-3	Manganese, dimethyldithiocarbamate	
P092	62-38-4	Mercury, (acetato-O)phenyl-	
P065	628-86-4	Mercury fulminate	(R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-	
P064	624-83-9	Methane, isocyanato-	
P016	542-88-1	Methane, oxybis(chloro-	
P112	509-14-8	Methane, tetranitro-	(R)
P118	75-70-7	Methanethiol, trichloro-	
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)carbonyl]oxy]phenyl]-, monohydrochloride	
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-	
P050	115-20-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide	
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-	
P199	2032-65-7	Methiocarb	

Table 205a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P066	16752-77-5	Methomyl	
P068	60-34-4	Methyl hydrazine	
P064	624-83-9	Methyl isocyanate	
P069	75-86-5	2-Methylactonitrile	
P071	298-00-0	Methyl parathion	
P190	1129-41-5	Metolcarb	
P128	315-18-4	Mexacarbate	
P072	86-88-4	alpha-Naphthylthiourea	
P073	13463-39-3	Nickel carbonyl	
P073	13463-39-3	Nickel carbonyl Ni(CO) ₄ , (T-4)-	
P074	557-19-7	Nickel cyanide	
P074	557-19-7	Nickel (II) cyanide	
P075	54-11-5	Nicotine and salts	
P076	10102-43-9	Nitric oxide	
P077	100-01-6	p-Nitroaniline	
P078	10102-44-0	Nitrogen dioxide	
P076	10102-43-9	Nitrogen (II) oxide	
P078	10102-44-0	Nitrogen (IV) oxide	
P081	55-63-0	Nitroglycerine	(R)
P082	62-75-9	N-Nitrosodimethylamine	
P084	4549-40-0	N-Nitrosomethylvinylamine	
P085	152-16-9	Octamethylpyrophosphor-amide	
P087	20816-12-0	Osmium oxide	
P087	20816-12-0	Osmium tetroxide	
P088	145-73-3	7-Oxabicyclo [2.2.1] heptane-2,3-dicarboxylic acid	
P194	23135-22-0	Oxamyl	
P089	56-38-2	Parathion	
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-	
P128	315-18-4	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	
P048	51-28-5	Phenol, 2,4-dinitro-	
P047	534-52-1	Phenol, 2-methyl-4,6-dinitro- and salts	
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate	
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	
P020	88-85-7	Phenol, 2,4-dinitro-6-(1-methylpropyl)-	
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt	(R)
P092	62-38-4	Phenylmercuric acetate	
P093	103-85-5	N-Phenylthiourea	
P094	298-02-2	Phorate	
P095	75-44-5	Phosgene	
P096	783-51-2	Phosphine	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P041	311-45-5	Phosphoric acid, diethyl p-nitrophenyl ester	
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio) methyl] ester	
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-O[2-(methylamino)-2-oxoethyl] ester	
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester	
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	
P097	52-85-7	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino) sulfonyl)phenyl] ester	
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester	
P204	57-47-6	Physostigmine	
P188	57-64-7	Physostigmine salicylate	
P110	78-00-2	Plumbane, tetraethyl-	
P098	151-50-8	Potassium cyanide	
P098	151-50-8	Potassium cyanide K(CN)	
P099	506-61-6	Potassium silver cyanide	
P201	2631-37-0	Promecarb	
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-,O-[(methylamino)carbonyl] oxime	
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl] oxime	
P101	107-12-0	Propanenitrile	
P027	542-76-7	Propanenitrile, 3-chloro-	
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-	
P081	55-63-0	1,2,3-Propanetriol, trinitrate-	(R)
P017	596-31-2	2-Propanone, 1-bromo-	
P102	107-19-7	Propargyl alcohol	
P003	107-02-8	2-Propenal	
P005	107-18-6	2-Propen-1-ol	
P067	75-55-8	1,2-Propylenimine	
P102	107-19-7	2-Propyn-1-ol	
P008	504-24-5	4-Pyridinamine	
P075	54-11-5	Pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts	
P204	57-47-6	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-	
P114	12039-52-0	Selenious acid, dithallium(1+) salt	

Table 205a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P103	630-10-4	Selenourea	
P104	506-64-9	Silver cyanide	
P104	506-64-9	Silver cyanide Ag(CN)	
P105	26628-22-8	Sodium azide	
P106	143-33-9	Sodium cyanide	
P106	143-33-9	Sodium cyanide Na(CN)	
P108	57-24-9	Strychnidin-10-one, and salts	
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-	
P108	57-24-9	Strychnine and salts	
P115	7446-18-6	Sulfuric acid, thallium (I) salt	
P109	3689-24-5	Tetraethyldithiopyrophosphate	
P110	78-00-2	Tetraethyl lead	
P111	107-49-3	Tetraethylpyrophosphate	
P112	509-14-8	Tetranitromethane	(R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester	
P113	1314-32-5	Thallic oxide	
P113	1314-32-5	Thallium (III) oxide	
P114	12039-52-0	Thallium (I) selenide	
P115	7446-18-6	Thallium (I) sulfate	
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester	
P045	39196-18-4	Thiofanox	
P049	541-53-7	Thioimidodicarbonic diamide	
P014	108-98-5	Thiophenol	
P116	79-19-6	Thiosemicarbazide	
P026	5344-82-1	Thiourea, (2-chlorophenyl)-	
P072	86-88-4	Thiourea, 1-naphthalenyl-	
P093	103-85-5	Thiourea, phenyl-	
P185	26419-73-8	Tirpate	
P123	8001-35-2	Toxaphene	
P118	75-70-7	Trichloromethanethiol	
P119	7803-55-6	Vanadic acid, ammonium salt	
P120	1314-62-1	Vanadium (V) oxide	
P120	1314-62-1	Vanadium pentoxide	
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-	
P001	81-81-2	Warfarin, when present at concentrations greater than 0.3%	
P205	137-30-4	Zinc, bis(dimethylcarbamo-dithioato-S,S')-	
P121	557-21-1	Zinc cyanide	
P121	557-21-1	Zinc cyanide Zn(CN) ₂	
P122	1314-84-7	Zinc phosphide, when present at concentrations greater than 10%	(R,T)
P205	137-30-4	Ziram	

History: 1988 AACS; 1991 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2008 AACS.

R 299.9225 Table 205b; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as toxic hazardous wastes.

Rule 225. Table 205b reads as follows:

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U394	30558-43-1	A2213	
U001	75-07-0	Acetaldehyde	(I)
U034	75-87-6	Acetaldehyde, trichloro-	
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-	
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-	
U240	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters	
U112	141-78-6	Acetic acid, ethyl ester	(I)
U144	301-04-2	Acetic acid, lead(2+) salt	
U214	563-68-8	Acetic acid, thallium(1+) salt	
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	
U002	67-64-1	Acetone	(I)
U003	75-05-8	Acetonitrile	(I,T)
U004	98-86-2	Acetophenone	
U005	53-96-3	2-Acetylaminofluorene	
U006	75-36-5	Acetyl chloride	(C,R,T)
U007	79-06-1	Acrylamide	
U008	79-10-7	Acrylic acid	(I)
U009	107-13-1	Acrylonitrile	
U011	61-82-5	Amitrole	
U012	62-53-3	Aniline	(I,T)
U136	75-60-5	Arsinic acid, dimethyl-	
U014	492-80-8	Auramine	
U015	115-02-6	Azaserine	
U010	50-07-7	Azirino(2',3':3,4)pyrrolo (1,2-a)indole-4,7- dione,6-amino-8-[[((aminocarbonyl)oxy) methyl]-1,1a,2,8,8a,8b hexahydro-8a- methoxy-	

U280	101-27-9	Barban	
U278	22781-23-3	Bendiocarb	
U364	22961-82-6	Bendiocarb phenol	
U271	17804-35-2	Benomyl	
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	
U016	225-51-4	Benz[c]acridine	
U017	98-87-3	Benzal chloride	
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propenyl)-	
U018	56-55-3	Benz[a]anthracene	
U094	57-97-6	1,2-Benzanthracene, 7,12-dimethyl-	
U012	62-53-3	Benzenamine	(I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-	
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-	
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-	
U328	95-53-4	Benzenamine, 2-methyl-	
U353	106-49-0	Benzenamine, 4-methyl-	
U158	101-14-4	Benzenamine, 4,4'-methylenebis(2-chloro-	
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride	
U181	99-55-8	Benzenamine, 2-methyl-5-nitro	
U019	71-43-2	Benzene	(I,T)
U038	510-15-8	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)- alpha-hydroxy, ethyl	
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-	
U035	305-03-03	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	
U037	106-90-7	Benzene, chloro-	
U221	25376-45-8	Benzenediamine, ar-methyl-	
U028	117-81-7	1,2-Benzenedicarboxylic acid, [bis(2-ethyl-hexyl)] ester	
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	

U107	117-84-0	1,2-Benzenedicarboxylic acid, di-n-octyl ester	
U070	95-50-1	Benzene, 1,2-dichloro-	
U071	541-73-1	Benzene, 1,3-dichloro-	
U072	106-46-7	Benzene, 1,4-dichloro-	
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-	
U017	98-87-3	Benzene (dichloromethyl)-	
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl-	(R,T)
U239	1330-20-7	Benzene, dimethyl-	(I,T)
U201	108-46-3	1,3-Benzenediol	
U127	118-74-1	Benzene, hexachloro-	
U056	110-82-7	Benzene, hexahydro-	(I)
U220	108-88-3	Benzene, methyl-	
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-	
U106	606-20-2	Benzene, 1-methyl-2,6-dinitro-	
U055	98-82-8	Benzene, (1-methylethyl)-	(I)
U169	98-95-3	Benzene, nitro-	(I,T)
U183	608-93-5	Benzene, pentachloro-	
U185	82-68-8	Benzene, pentachloronitro-	
U020	98-09-9	Benzenesulfonic acid chloride	(C,R)
U020	98-09-9	Benzenesulfonyl chloride	(C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-	
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-	
U023	98-07-7	Benzene, (trichloromethyl)-	(C,R,T)
U234	99-35-4	Benzene, 1,3,5-trinitro-	(R,T)
U021	92-87-5	Benzidine	
U202	81-07-2	1,2-Benzisothiazol-3-(2H)-one, 1,1-dioxide and salts	
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	

U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	
U090	94-58-6	1,3-Benzodioxole, 5-propyl-	
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	
U064	189-55-9	Benzo[rs]t]pentaphene	
U248	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less	
U022	50-32-8	Benzo[a]pyrene	
U197	106-51-4	p-Benzoquinone	
U023	98-07-7	Benzotrichloride	(C,R,T)
U085	1464-53-5	2,2'-Bioxirane	(I,T)
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine	
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U225	75-25-2	Bromoform	
U030	101-55-3	4-Bromophenyl phenyl ether	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	
U031	71-36-3	1-Butanol	(I)
U159	78-93-3	2-Butanone	(I,T)
U160	1338-23-4	2-Butanone peroxide	(R,T)
U053	4170-30-3	2-Butenal	
U074	764-41-0	2-Butene, 1,4-dichloro-	(I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7alpha]]-	
U031	71-36-3	n-Butyl alcohol	(I)
U136	75-60-5	Cacodylic acid	
U032	13765-19-0	Calcium chromate	
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	

U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	
U238	51-79-6	Carbamic acid, ethyl ester	
U178	815-53-2	Carbamic acid, methylnitroso-, ethyl ester	
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester	
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis - dimethyl ester	
U097	79-44-7	Carbamic chloride, dimethyl	
U114	111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters	
U062	2303-16-4	Carbamodithioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-	
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	
U279	63-25-2	Carbaryl	
U372	10605-21-7	Carbendazim	
U367	1563-38-8	Carbofuran phenol	
U215	6533-73-9	Carbonic acid, dithallium(1+) salt	
U156	79-22-1	Carbonochloridic acid, methyl ester	(I,T)
U033	353-50-4	Carbon oxyfluoride	(R,T)
U211	56-23-5	Carbon tetrachloride	
U034	75-87-6	Chloral	
U035	305-03-3	Chlorambucil	
U036	57-74-9	Chlordane, technical	
U026	494-03-1	Chlornaphazine	
U037	108-90-7	Chlorobenzene	
U038	510-15-6	Chlorobenzilate	
U039	59-50-7	4-Chloro-m-cresol	
U042	110-75-8	2-Chloroethyl vinyl ether	
U044	67-66-3	Chloroform	
U046	107-30-2	Chloromethyl methyl ether	
U047	91-58-7	beta-Chloronaphthalene	
U048	95-57-8	o-Chlorophenol	

U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride	
U032	13765-19-0	Chromic acid, calcium salt	
U050	218-01-9	Chrysene	
U051	-----	Creosote	
U052	1319-77-3	Cresylic acid	
U053	4170-30-3	Crotonaldehyde	
U055	98-82-8	Cumene	(I)
U246	506-68-3	Cyanogen bromide	
U197	106-51-4	1,4-Cyclohexadienedione	
U056	110-82-7	Cyclohexane	(I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha, 2alpha,3beta,4alpha, 5alpha,6beta)-	
U057	108-94-1	Cyclohexanone	(I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa- chloro-	
U058	50-18-0	Cyclophosphamide	
U240	94-75-7	2,4-D, salts and esters	
U059	20830-81-3	Daunomycin	
U060	72-54-8	DDD	
U061	50-29-3	DDT	
U062	2303-16-4	Diallate	
U063	53-70-3	Dibenz[a,h]anthracene	
U064	189-55-9	Dibenz[a,i]pyrene	
U066	96-12-8	1,2-Dibromo-3-chloropropane	
U069	84-74-2	Dibutyl phthalate	
U070	95-50-1	o-Dichlorobenzene	
U071	541-73-1	m-Dichlorobenzene	
U072	106-46-7	p-Dichlorobenzene	
U073	91-94-1	3,3'-Dichlorobenzidine	
U074	764-41-0	1,4-Dichloro-2-butene	(I,T)
U075	75-71-8	Dichlorodifluoromethane	
U078	75-35-4	1,1-Dichloroethylene	
U079	156-60-5	1,2-Dichloroethylene	
U025	111-44-4	Dichloroethyl ether	

U027	108-60-1	Dichloroisopropyl ether	
U024	111-91-7	Dichloromethoxy ethane	
U081	120-83-2	2,4-Dichlorophenol	
U082	87-65-0	2,6-Dichlorophenol	
U084	542-75-6	1,3-Dichloropropene	
U085	1464-53-5	1,2:3,4-Diepoxybutane	(I,T)
U108	123-91-1	1,4-Diethylene dioxide	
U395	5952-26-1	Diethylene glycol, dicarbamate	
U028	117-81-7	Diethylhexyl phthalate	
U086	1615-80-1	N,N-Diethylhydrazine	
U087	3288-58-2	O,O-Diethyl-S-methyl-dithiophosphate	
U088	84-66-2	Diethyl phthalate	
U089	56-53-1	Diethylstilbestrol	
U090	94-58-6	Dihydrosafrole	
U091	119-90-4	3,3'-dimethoxybenzidine	
U092	124-40-3	Dimethylamine	(I)
U093	60-11-7	Dimethylaminoazobenzene	
U094	57-97-6	7,12-Dimethylbenz[a]anthracene	
U095	119-93-7	3,3'-Dimethylbenzidine	
U096	80-15-9	Alpha,alpha-Dimethyl-benzylhydroperoxide	(R)
U097	79-44-7	Dimethylcarbamoyl chloride	
U098	57-14-7	1,1-Dimethylhydrazine	
U099	540-73-8	1,2-Dimethylhydrazine	
U101	105-67-9	2,4-Dimethylphenol	
U102	131-11-3	Dimethyl phthalate	
U103	77-78-1	Dimethyl sulfate	
U105	121-14-2	2,4-Dinitrotoluene	
U106	606-20-2	2,6-Dinitrotoluene	
U107	117-84-0	Di-n-octyl phthalate	
U108	123-91-1	1,4-Dioxane	
U109	122-66-7	1,2-Diphenylhydrazine	
U110	142-84-7	Dipropylamine	(I)
U111	621-64-7	Di-n-propylnitrosamine	
U041	106-89-8	Epichlorhydrin	

U001	75-07-0	Ethanal	(I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	
U404	121-44-8	Ethanamine, N,N-diethyl-	
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2- pyridinyl-N'-(2-thienylmethyl)-	
U067	106-93-4	Ethane, 1,2-dibromo-	
U076	75-34-3	Ethane, 1,1-dichloro-	
U077	107-06-2	Ethane, 1,2-dichloro-	
U131	67-72-1	Ethane, 1,1,1,2,2,2-hexachloro-	
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2- chloro-	
U117	60-29-7	Ethane, 1,1'-oxybis-	(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	
U184	76-01-7	Ethane, pentachloro-	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	
U218	62-55-5	Ethanethioamide	
U226	71-55-6	Ethane, 1,1,1-trichloro-	
U227	79-00-5	Ethane, 1,1,2-trichloro-	
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester	
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-n- hydroxy-2-oxo- methyl ester	
U359	110-80-5	Ethanol, 2-ethoxy-	
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate	
U004	98-86-2	Ethanone, 1-phenyl	
U043	75-01-4	Ethene, chloro-	
U042	110-75-8	Ethene, 2-chloroethoxy-	
U078	75-35-4	Ethene, 1,1-dichloro-	
U079	156-60-5	Ethene, trans-1,2-dichloro-	
U210	127-18-4	Ethene, 1,1,2,2-tetrachloro-	
U228	79-01-6	Ethene, trichloro-	
U112	141-78-8	Ethyl acetate	(I)

U113	140-88-5	Ethyl acrylate	(I)
U238	51-79-6	Ethyl carbamate (urethan)	
U117	60-29-7	Ethyl ether	(I)
U114	111-54-6	Ethylenebis(dithiocarbamic acid), salts and ester	
U067	106-93-4	Ethylene dibromide	
U077	107-06-2	Ethylene dichloride	
U359	110-80-5	Ethylene glycol monoethyl ether	
U115	75-21-8	Ethylene oxide	(I,T)
U116	96-45-7	Ethylene thiourea	
U076	75-34-3	Ethylidene dichloride	
U118	97-63-2	Ethyl methacrylate	
U119	62-50-0	Ethyl methanesulfonate	
U120	206-44-0	Fluoranthene	
U122	50-00-0	Formaldehyde	
U123	64-18-6	Formic acid	(C,T)
U124	110-00-9	Furan	(I)
U125	98-01-1	2-Furancarboxaldehyde	(I)
U147	108-31-6	2,5-Furandione	
U213	109-99-9	Furan, tetrahydro-	(I)
U125	98-01-1	Furfural	(I)
U124	110-00-9	Furfuran	(I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoareido)-, D-	
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[methylnitrosoamino]	
U126	765-34-4	Glycidylaldehyde	
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-	
U127	118-74-1	Hexachlorobenzene	
U128	87-68-3	Hexachlorobutadiene	
U130	77-47-4	Hexachlorocyclopentadiene	
U131	67-72-1	Hexachloroethane	
U132	70-30-4	Hexachlorophene	
U243	1888-71-7	Hexachloropropene	
U133	302-01-2	Hydrazine	(R,T)

U086	1615-80-1	Hydrazine, 1,2-diethyl-	
U098	57-14-7	Hydrazine, 1,1-dimethyl-	
U099	540-73-8	Hydrazine, 1,2-dimethyl-	
U109	122-66-7	Hydrazine, 1,2-diphenyl-	
U134	7664-39-3	Hydrofluoric acid	(C,T)
U134	7664-39-3	Hydrogen fluoride	(C,T)
U135	7783-06-4	Hydrogen sulfide	
U135	7783-06-4	Hydrogen sulfide H ₂ S	
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
U116	96-45-7	2-Imidazolidinethione	
U137	193-39-5	Indeno[1,2,3cd]pyrene	
U190	85-44-9	1,3-Isobenzofurandione	
U140	78-83-1	Isobutyl alcohol	(I,T)
U141	120-58-1	Isosafrole	
U142	143-50-0	Kepone	
U143	303-34-4	Lasiocarpine	
U144	301-04-2	Lead acetate	
U146	1335-32-6	Lead, bis(acetato-O) tetrahydroxytri-	
U145	7446-27-7	Lead phosphate	
U146	1335-32-6	Lead subacetate	
U129	58-89-9	Lindane	
U163	70-25-7	MNNG	
U147	108-31-6	Maleic anhydride	
U148	123-33-1	Maleic hydrazide	
U149	109-77-3	Malononitrile	
U150	148-82-3	Melphalan	
U151	7439-97-6	Mercury	
U152	126-98-7	Methacrylonitrile	(I,T)
U092	124-40-3	Methanamine, N-methyl-	(I)
U029	74-83-9	Methane, bromo-	
U045	74-87-3	Methane, chloro-	(I,T)
U046	107-30-2	Methane, chloromethoxy-	
U068	74-95-3	Methane, dibromo-	

U080	75-09-2	Methane, dichloro-	
U075	75-71-8	Methane, dichlorodifluoro-	
U138	74-88-4	Methane, iodo-	
U119	62-50-0	Methanesulfonic acid, ethyl ester	
U211	56-23-5	Methane, tetrachloro-	
U153	74-93-1	Methanethiol	(I,T)
U225	75-25-2	Methane, tribromo-	
U044	67-66-3	Methane, trichloro-	
U121	75-69-4	Methane, trichlorofluoro-	
U036	57-74-9	4,7-Methanoindan, 1,2,4,5,6,7,8,8- octachloro-	
U154	67-56-1	Methanol	(I)
U155	91-80-5	Methapyrilene	
U142	143-50-0	1,3,4-Metheneo-2H-cyclobuta[cd]pentalen- 2-one,1,1a,3,3a,4,5,5,5a,5b,6-	
U247	72-43-5	Methoxychlor	
U154	67-56-1	Methyl alcohol	(I)
U029	74-83-9	Methyl bromide	
U186	504-60-9	1-Methylbutadiene	(I)
U045	74-87-3	Methyl chloride	(I,T)
U156	79-22-1	Methyl chlorocarbonate	(I,T)
U226	71-55-6	Methylchloroform	
U157	56-49-5	3-Methylcholanthrene	
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	
U068	74-95-3	Methylene bromide	
U080	75-09-2	Methylene chloride	
U159	78-93-3	Methyl ethyl ketone	(I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide	(R,T)
U138	74-88-4	Methyl iodide	
U161	108-10-1	Methyl isobutyl ketone	(I)
U162	80-62-6	Methyl methacrylate	(I,T)
U161	108-10-1	4-Methyl-2-pentanone	(I)
U164	56-04-2	Methylthiouracil	
U010	50-07-7	Mitomycin	(C)

U059	20830-81-3	5,12-Naphthacenedione, (8S-cis)-8-acetyl-10-[(3-amino-2,3,6-trideoxy-alpha-L-lyxohexopyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-	
U167	134-32-7	1-Naphthalenamine	
U168	91-59-8	2-Naphthalenamine	
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-	
U165	91-20-3	Naphthalene	
U047	91-58-7	Naphthalene, 2-chloro-	
U166	130-15-4	1,4-Naphthalenedione	
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-(1,1-biphenyl)-4,4'diyl)]-bis(azo)bis (5-amino-4-hydroxy)-	
U279	63-25-2	1-Naphthalenol, methylcarbamate	
U166	130-15-4	1,4-Naphthoquinone	
U167	134-32-7	alpha-Naphthylamine	
U168	91-59-8	beta-Naphthylamine	
U217	10102-45-1	Nitric acid, thallium(1+) salt	
U169	98-95-3	Nitrobenzene	(I,T)
U170	100-02-7	p-Nitrophenol	
U171	79-46-9	2-Nitropropane	(I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine	
U173	1116-54-7	N-Nitrosodiethanolamine	
U174	55-18-5	N-Nitrosodiethylamine	
U176	759-73-9	N-Nitroso-N-ethylurea	
U177	684-93-5	N-Nitroso-N-methylurea	
U178	615-53-2	N-Nitroso-N-methylurethane	
U179	100-75-4	N-Nitrosopiperidine	
U180	930-55-2	N-Nitrosopyrrolidine	
U181	99-55-8	5-Nitro-o-toluidine	
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide	
U058	50-18-0	2H-1,3,2-Oxazaphosphorin, 2-amine, N,N- bis(2-chloroethyl) tetrahydro-, 2-	
U115	75-21-8	Oxirane	(I,T)
U126	765-34-4	Oxiranecarboxyaldehyde	
U041	106-89-8	Oxirane, 2-(chloromethyl)-	

U182	123-63-7	Paraldehyde	
U183	608-93-5	Pentachlorobenzene	
U184	76-01-7	Pentachloroethane	
U185	82-68-8	Pentachloronitrobenzene	
See F027	87-86-5	Pentachlorophenol	
U161	108-10-1	Pentanone, 4-methyl-	
U186	504-60-9	1,3-Pentadiene	(I)
U187	62-44-2	Phenacetin	
U188	108-95-2	Phenol	
U048	95-57-8	Phenol, 2-chloro-	
U039	59-50-7	Phenol, 4-chloro-3-methyl-	
U081	120-83-2	Phenol, 2,4-dichloro-	
U082	87-65-0	Phenol, 2,6-dichloro-	
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenedivl)bis-, (E)-	
U101	105-67-9	Phenol, 2,4-dimethyl-	
U052	1319-77-3	Phenol, methyl-	
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	
U411	114-26-1	Phenol, 2-(1-methylethoxy)-	
U170	100-02-7	Phenol, 4-nitro-	
See F027	87-86-5	Phenol, pentachloro-	
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-	
See F027	95-95-4	Phenol, 2,4,5-trichloro-	
See F027	88-06-2	Phenol, 2,4,6-trichloro-	
U150	148-82-3	L-Phenylalanine, 4-[bis(2-	
U145	7446-27-7	Phosphoric acid, lead salt	
U087	3288-58-2	Phosphorodithioic acid, 0,0-diethyl-S-methyl ester	
U189	1314-80-3	Phosphorus sulfide	(R)
U190	85-44-9	Phthalic anhydride	
U191	109-06-8	2-Picoline	
U179	100-75-4	Piperidine, 1-nitroso-	
U192	23950-58-5	Pronamide	

U194	107-10-8	1-Propanamine	(I,T)
U111	621-64-7	1,Propanamine, N-nitroso-N-propyl-	
U110	142-84-7	1-Propanamine, N-propyl-	(I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-	
U083	78-87-5	Propane, 1,2-dichloro-	
U149	109-77-3	Propanedinitrile	
U171	79-46-9	Propane, 2-nitro-	(I,T)
U027	108-60-1	Propane, 2,2'oxybis[2-chloro-	
U193	1120-71-4	1,3-Propane sultone	
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorphenoxy)-	
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U140	78-83-1	1-Propanol, 2-methyl-	(I,T)
U002	67-64-1	2-Propanone	(I)
U007	79-06-1	2-Propenamide	
U084	542-75-6	Propene, 1,3-dichloro-	
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	
U009	107-13-1	2-Propenenitrile	
U152	126-98-7	2-Propenenitrile, 2-methyl-	(I,T)
U008	79-10-7	2-Propenoic acid	(I)
U113	140-88-5	2-Propenoic acid, ethyl ester	(I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	(I,T)
U373	122-42-9	Propham	
U411	114-26-1	Propoxur	
U194	107-10-8	n-Propylamine	(I,T)
U083	78-87-5	Propylene dichloride	
U387	52888-80-9	Prosulfocarb	
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-	
U196	110-86-1	Pyridine	
U191	109-06-8	Pyridine, 2-methyl-	
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	

U180	930-55-2	Pyrrole, tetrahydro-N-nitroso-	
U200	50-55-5	Reserpine	
U201	108-46-3	Resorcinol	
U202	81-07-2	Saccharin and salts	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid	
U204	7783-00-8	Selenium dioxide	
U205	7488-56-4	Selenium sulfide	
U205	7488-56-4	Selenium sulfide SeS ₂	(R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)	
See F027	93-72-1	Silvex	
U206	18883-66-4	Streptozotocin	
U103	77-78-1	Sulfuric acid, dimethyl ester	
U189	1314-80-3	Sulfur phosphide	(R)
See F027	93-76-5	2,4,5-T	
U207	95-94-3	1,2,4,5-Tetrachlorobenzene	
U208	630-20-6	1,1,1,2-Tetrachloroethane	
U209	79-34-5	1,1,2,2-Tetrachloroethane	
U210	127-18-4	Tetrachloroethylene	
See F027	58-90-2	2,3,4,6-Tetrachlorophenol	
U213	109-99-9	Tetrahydrofuran	(I)
U214	563-68-8	Thallium (I) acetate	
U215	6533-73-9	Thallium (I) carbonate	
U216	7791-12-0	Thallium (I) chloride	
U216	7791-12-0	Thallium chloride TlCl	
U217	10102-45-1	Thallium (I) nitrate	
U218	62-55-5	Thioacetamide	
U410	59669-26-0	Thiodicarb	
U153	74-93-1	Thiomethanol	(I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ , tetramethyl-	
U409	23564-05-8	Thiophanate-methyl	
U219	62-56-6	Thiourea	
U244	137-26-8	Thiram	

U220	108-88-3	Toluene	
U221	25376-45-8	Toluenediamine	
U223	26471-62-5	Toluene diisocyanate	(R,T)
U328	95-53-4	o-Toluidine	
U353	106-49-0	p-Toluidine	
U222	636-21-5	o-Toluidine hydrochloride	
U389	2303-17-5	Triallate	
U011	61-82-5	1H-1,2,4-Triazol-3-amine	
U227	79-00-5	1,1,2-Trichloroethane	
U228	79-01-6	Trichloroethylene	
U121	75-69-4	Trichloromonofluoromethane	
See F027	95-95-4	2,4,5-Trichlorophenol	
See F027	88-06-2	2,4,6-Trichlorophenol	
U404	121-44-8	Triethylamine	
U234	99-35-4	1,3,5-Trinitrobenzene	(R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-	
U235	126-72-7	Tris(2,3-Dibromopropyl) phosphate	
U216	7791-12-0	Thallium (I) chloride	
U236	72-57-1	Trypan blue	
U237	66-75-1	Uracil mustard	
U176	759-73-9	Urea, N-ethyl-N-nitroso-	
U177	684-93-5	Urea, N-methyl-N-nitroso-	
U043	75-01-4	Vinyl chloride	
U248	81-81-2	Warfarin, and salts, when present at a concentration of 0.3% or less	
U239	1330-20-7	Xylene	(I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-, methyl	
U249	1314-84-7	Zinc phosphide, when present at concentration 10% or less	

History: 1988 AACS; 1991 AACS; 1994 AACS; 1996 AACS; 2008 AACS.

R 299.9226 Table 205c; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as toxic hazardous wastes.

Rule 226. Table 205c reads as follows:

Table 205c			
Michigan Hazardous Waste <u>Number</u>	Chemical Abstract Services <u>Number</u>	<u>Substance</u>	<u>Hazard Code</u>
001U	50-76-0	Actinomycin D	
002U	107-05-1	Allyl chloride	
003U	117-79-3	2-aminoanthraquinone	
004U	60-09-3	Aminoazobenzene	
005U	97-56-3	0-aminoazotoluene	
006U	92-67-1	4-aminobiphenyl	
007U	132-32-1	3-amino-9-ethyl carbazole	
157U	57360-17-5	3-amino-9-ethyl carbazole hydrochloride	
008U	82-28-0	1-amino-2-methyl anthraquinone	
009U	101-05-3	Anilazine	
158U	142-04-1	Aniline hydrochloride	
011U	90-04-0	o-Anisidine	
012U	134-29-2	o-Anisidine hydrochloride	
013U	Class-01-0	Antimony (when in the form of particles 100 microns or less)	
014U	1397-94-0	Antimycin A	
147U	2642-71-9	Azinphos-ethyl	
148U	86-50-0	Azinphos-methyl	
159U	103-33-3	Azobenzene	
015U	101-27-9	Barban	
016U	22781-23-3	Bendiocarb	
017U	17804-35-2	Benomyl	
020U	1689-84-5	Bromoxynil	
160U	106-99-0	1,3-Butadiene	
161U	85-68-7	Butyl benzl phthalate	
021U	140-57-8	2(p-tert-Butylphenoxy)-isopropyl-2-chloroethyl sulfite	
022U	2425-06-1	Captafol	

023U	133-06-2	Captan	
024U	63-25-3	Carbaryl	
025U	1563-66-2	Carbofuran	
027U	786-19-6	Carbophenothion	
028U	Class-08-6	Chloramines	
152U	470-90-6	Chlorfenuinphos	
029U	2921-88-2	Chloropyrifos	
030U	Class-05-3	Chlorinated dibenzofurans (other than those listed in Table 202)	
031U	Class-05-4	Chlorinated dioxins (other than those listed in Table 202)	
032U	7782-50-5	Chlorine gas	
033U	107-07-3	2-Chloroethanol	
034U	6959-48-4	3-(Chloromethyl) pyridine hydrochloride	
150U	106-48-9	p-chlorophenol	
162U	7005-72-3	1-chloro-4-phenoxybenzene	
036U	5131-60-2	4-chloro-m-phenylenediamine	
037U	95-83-0	4-chloro-o-phenylenediamine	
038U	126-99-8	Chloroprene	
163U	590-21-6	1-chloropropene	
151U	96-79-4	5-chloro-o-toluidene	
040U	1420-04-8	Clonitralid	
041U	Class-01-6	Cobalt (when in the form of particles 100 microns or less)	
042U	56-72-4	Coumasphos	
043U	120-71-8	p-Cresidine	
044U	7700-17-6	Crotoxyphos	
046U	66-81-9	Cycloheximide	
164U	72-55-9	P,P' DDE	
047U	8065-48-3	Demeton	
048U	39156-41-7	2,4-Diaminoanisole sulfate	
049U	101-80-4	4,4'-Diaminodiphenyl ether	
050U	95-80-7	2,4-Diaminotoluene	
051U	333-41-5	Diazinon	
052U	117-80-6	Dichlone	

054U	62-73-7	Dichlorvos	
055U	141-66-2	Dichrotophos	
056U	64-67-5	Diethyl sulfate	
165U	105-55-5	N,N'-Diethylthiourea	
057U	39300-45-3	Dinocap	
058U	78-34-2	Dioxathion	
059U	2104-64-5	EPN	
166U	106-88-7	1,2-Epoxybutane	
061U	563-12-2	Ethion	
063U	115-90-2	Fensulfothion	
064U	55-38-9	Fenthion	
065U	33245-39-5	Fluchloralin	
068U	680-31-9	Hexamethyl phosphoramidate	
070U	123-31-9	Hydroquinone	
071U	1072-52-2	N-(2-Hydroxyethyl) ethyleneimine	
072U	7778-54-3	Hypochlorite	
073U	54-85-3	Isonicotinic acid hydrazine	
167U	59299-51-3	Kanechlor C	
074U	463-51-4	Ketene	
075U	78-97-7	Lactonitril	
076U	21609-90-5	Leptophos	
077U	Class-02-0	Lithium and compounds	
078U	569-64-2	Malachite green	
079U	121-75-5	Malathion	
080U	72-33-3	Mestranol	
082U	838-88-0	4,4'-Methylenebis(2-methylaniline)	
083U	101-61-1	4,4'-Methylenebis(N,N-dimethylaniline)	
086U	90-12-0	1-Methylnaphthalene	
088U	7786-34-7	Mevinphos	
089U	315-18-4	Mexacarbate	
090U	2385-85-5	Mirex	
092U	6923-22-4	Monocrotophos	
093U	505-60-2	Mustard gas	
094U	300-76-5	Naled	
095U	2243-62-1	1,5-Napthalenediamine	

096U	Class-02-2	Nickel (when in the form of particles 100 microns or less)	
097U	61-57-4	Niridazole	
098U	139-94-6	Nithiazide	
099U	602-87-9	5-Nitroacenaphthene	
100U	99-59-2	Nitro-o-anisidine	
101U	92-93-3	Nitrobiphenyl	
102U	1836-75-5	Nitrofen	
103U	531-82-8	N-(4-(5-nitro-2-furyl)-2-thiazolyl)-	
104U	51-75-2	Nitrogen mustard	
106U	156-10-5	p-Nitrosodiphenylamine	
168U	4549-40-0	N-Nitrosomethylvinylamine	
108U	135-20-6	N-nitroso-N-phenylhydroxylamine, ammonium salt	
169U	29082-74-4	Octachlorostyrene	
110U	301-12-2	Oxydemeton-methyl	
111U	1910-42-5	Paraquat	
112U	79-21-0	Peroxyacetic acid	
113U	136-40-3	Phenazopyridine hydrochloride	
114U	3546-10-9	Phenesterin	
115U	50-06-6	Phenobarbitol	
116U	57-41-0	Phenytoin	
117U	630-93-3	Phenytoin sodium	
118U	4104-14-7	Phosazetim	
119U	732-11-6	Phosmet	
120U	13171-21-6	Phosphamidon	
121U	120-62-7	Piperonyl sulfoxide	
122U	Class-07-8	Polybrominated biphenyls (PBB)	
124U	57-57-8	Propiolactone	
127U	51-52-5	Propylthiouracil	
128U	83-74-4	Rotenone	
129U	57-56-7	Semicarbazide	
170U	563-41-7	Semicarbazide hydrochloride	
153U	62-74-8	Sodium fluoroacetate	
131U	100-42-5	Styrene	

132U	95-06-7	Sulfallate	
134U	72-54-8	TDE	
135U	107-49-3	TEPP	
136U	13071-79-9	Terbufos	
137U	961-11-5	Tetrachlorvinphos	
138U	139-65-1	4,4'-Thiodianiline	
139U	95-53-4	o-Toluidine	
140U	Class-08-4	Triaryl phosphate esters	
154U	56-35-9	Bis(tri-n-butyl tin) oxide	
171U	688-73-3	Tributyltin (and other salts and esters)	
172U	87-61-6	1,2,3-Trichlorobenzene	
173U	120-82-1	1,2,4-Trichlorobenzene	
141U	52-68-6	Trichlorfon	
142U	1582-09-8	Trifluralin	
143U	137-17-7	2,4,5-Trimethylaniline	
144U	512-56-1	Triamethylphosphate	
174U	51-79-6	Urethane	
175U	593-60-2	Vinyl bromide	
155U	75-35-4	Vinylidene chloride	
146U	137-30-4	Ziram	

History: 1988 AACS; 1989 AACS; 1994 AACS; 2004 AACS; 2008 AACS.

R 299.9227 Deletion of certain hazardous waste numbers after equipment cleaning and replacement.

Rule 227. (1) Wastes from wood preserving processes at plants that do not resume or initiate the use of chlorophenolic preservatives will not meet the listing description of F032 once the generator has met all of the requirements of subrules (2) to (5) of this rule. These wastes may, however, continue to meet another hazardous waste listing description or may exhibit 1 or more of the hazardous waste characteristics.

(2) Generators shall either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the environment. In cleaning or replacing the process equipment, the generator shall do 1 of the following:

(a) Prepare and follow a process equipment cleaning plan and clean process equipment in accordance with the provisions of subrule (3) of this rule.

(b) Prepare and follow a process equipment replacement plan and replace process equipment in accordance with the provisions of subrule (4) of this rule.

(c) Document that previous process equipment cleaning or replacement, or both, was performed in accordance with the provisions of subrules (3) or (4), or both, of this rule and occurred after cessation of the use of chlorophenolic preservatives.

(3) In cleaning the process equipment that may have come into contact with chlorophenolic formulations, the generator shall do all of the following:

(a) Prepare and sign a written process equipment cleaning plan that describes all of the following:

(i) The process equipment to be cleaned.

(ii) The process equipment cleaning method or methods.

(iii) The solvent to be used in cleaning the process equipment.

(iv) How the solvent rinses will be tested.

(v) How the cleaning residues will be managed and disposed of.

(b) Clean the process equipment as follows:

(i) Remove all visible residues from the process equipment.

(ii) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.

(c) Test the rinses in accordance with an appropriate method in accordance with 40 C.F.R. §261.35(b)(2)(iii).

(d) Manage all residues from the cleaning process as F032 waste.

(4) In replacing the process equipment that may have come into contact with chlorophenolic formulations, the generator shall do both of the following:

(a) Prepare and sign a written process equipment replacement plan that describes all of the following:

(i) The process equipment to be replaced.

- (ii) The process equipment replacement method or methods.
- (iii) How the process equipment will be managed and disposed of.
- (b) Manage the discarded process equipment as F032 waste.
- (5) The generator shall maintain all of the following information that documents the cleaning and replacement activities as part of the operating record:
 - (a) The name and address of the plant.
 - (b) Formulations previously used and the date on which their use ceased in each process at the plant.
 - (c) Formulations currently used in each process at the plant.
 - (d) The equipment cleaning or replacement plan.
 - (e) The name and address of any persons who conducted the cleaning and replacement.
 - (f) The dates on which the cleaning and replacement were accomplished.
 - (g) The dates of sampling and testing.
 - (h) A description of the sampling handling and preparation techniques, including the techniques that are used for all of the following:
 - (i) Extraction.
 - (ii) Containerization.
 - (iii) Preservation.
 - (iv) Chain-of-custody of the samples.
 - (i) A description of the tests performed, the date the tests were performed, and the results of the tests.
 - (j) The names and model numbers of the instruments used in performing the tests.
 - (k) Quality assurance/quality control documentation.
 - (l) A statement which is signed by the generator or the generator's authorized representative and which contains the following language: "I certify under penalty of law that all process equipment required to be cleaned or replaced under R 299.9227 was cleaned or replaced as represented in the equipment cleaning and/or replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment."
- (6) The provisions of 40 C.F.R. §261.35(b)(2)(iii) are adopted by reference in R 299.11003.

History: 1994 AACS; 2008 AACS.

R 299.9228 Universal wastes.

Rule 228. (1) This rule provides an alternate set of standards under which universal wastes may be managed instead of full regulation as hazardous waste under these rules. The requirements of this rule apply to the universal wastes identified in this subrule and to persons managing the universal wastes. Universal wastes that are not managed pursuant to this rule are subject to full regulation as hazardous waste under these rules. Except as provided in subrule (2) of this rule, all of the following universal wastes are exempt from full regulation as hazardous waste under these rules if they are managed pursuant to the requirements of this rule:

(a) A battery, including a spent lead-acid battery that is not managed pursuant to R 299.9804.

(b) A pesticide, including both of the following:

(i) A recalled pesticide, including the following:

(A) A stock of a suspended and cancelled pesticide that is part of a voluntary or mandatory recall under section 19(b) of the federal insecticide, fungicide, and rodenticide act, including, but not limited to, a stock owned by the registrant responsible for conducting the recall.

(B) A stock of a suspended or cancelled pesticide, or of a pesticide that is not in compliance with the federal insecticide, fungicide, and rodenticide act, that is part of a voluntary recall by the registrant.

(ii) A stock of an unused pesticide product other than a product specified in subrule (1)(b)(i) of this rule that is collected and managed as part of a waste pesticide collection program.

(c) A thermostat.

(d) A mercury switch.

(e) A mercury thermometer.

(f) A waste device which contains only elemental mercury as the hazardous waste constituent.

(g) An electric lamp.

(h) A pharmaceutical.

(i) Consumer electronics.

(j) Antifreeze as defined in R 299.9101.

(2) The requirements of this rule do not apply to the following:

(a) A spent lead-acid battery that is managed pursuant to R 299.9804.

(b) A battery that is not a waste under part 2 of these rules. A used battery becomes a waste when it is discarded. An unused battery becomes a waste on the date the universal waste handler decides to discard it.

(c) A battery that is not hazardous waste. A battery is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(d) A pesticide identified in subrule (1) of this rule that is managed by farmers in compliance with R 299.9204(3)(b).

(e) A pesticide that does not meet the requirements in subrule (1) of this rule. The pesticide shall be managed pursuant to parts 2 to 8 of these rules.

(f) A pesticide that is not a waste under part 2 of these rules. A recalled pesticide becomes a waste on the first date on which the generator of the pesticide agrees to participate in the recall and the person conducting the recall decides to discard the pesticide. An unused pesticide becomes a waste on the date that the generator decides to discard it. The following pesticides are not wastes:

(i) A recalled pesticide if the person conducting the recall is in compliance with either of the following provisions:

(A) The person has not made a decision to discard the pesticide. Until a decision is made, the pesticide does not meet the definition of a waste pursuant to R 299.9202 and, therefore, is not considered a hazardous waste subject to regulations under these rules. The pesticide remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.

(B) The person has made a decision to use a management option that does not result in the pesticide meeting the definition of a waste pursuant to R 299.9202. The pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.

(ii) An unused pesticide product if the generator of the unused pesticide product has not decided to discard the product. The pesticide product remains subject to the requirements of the federal insecticide, fungicide, and rodenticide act.

(g) A pesticide that is not hazardous waste. A pesticide is a hazardous waste if it is listed pursuant to R 299.9213 or R 299.9214 or if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(h) A thermostat, mercury switch, mercury thermometer, or a waste device which contains only elemental mercury as the hazardous waste constituent that is not a waste under part 2 of these rules. A used thermostat, mercury switch, mercury thermometer, or a used waste device which contains only elemental mercury as the hazardous waste constituent becomes a waste on the date it is discarded. An unused thermostat, mercury switch, mercury thermometer, and an unused waste device which contains only elemental mercury as the hazardous waste constituent becomes a waste on the date that the universal waste handler decides to discard it.

(i) A thermostat, mercury switch, mercury thermometer, and a waste device which contains only elemental mercury as the hazardous waste constituent that is not hazardous waste. A thermostat, mercury switch, mercury thermometer, and a waste device which contains only elemental mercury as the hazardous waste constituent is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(j) An electric lamp that is not a waste under part 2 of these rules. A used electric lamp becomes a waste on the date that the universal waste handler permanently removes it from its fixture. An unused electric lamp becomes a waste on the date that the universal waste handler decides to discard it.

(k) An electric lamp that is not a hazardous waste. An electric lamp is a hazardous waste if it exhibits 1 or more of the hazardous characteristics identified in R 299.9212.

(l) A pharmaceutical that is not a waste under part 2 of these rules. An unused pharmaceutical becomes a waste on the date that the universal waste handler decides to discard it.

(m) A pharmaceutical that is not a hazardous waste. A waste pharmaceutical is a hazardous waste if it is listed under R 299.9213 or R 299.214 or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(n) Consumer electronics that are not a waste under part 2 of these rules. A consumer electronic becomes a waste on the date that the universal waste handler decides to discard it.

(o) Consumer electronics that are not a hazardous waste. A consumer electronic is a hazardous waste if it is listed under R 299.9213 or R 299.214 or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(p) Antifreeze that is not a waste under Part 2 of these rules. Used antifreeze becomes a waste when it is discarded. Unused antifreeze becomes a waste on the date that the universal waste handler decides to discard it.

(q) Antifreeze that is not a hazardous waste. Antifreeze is a hazardous waste if it is listed in R 299.9213 or R 299.9214, or if it exhibits 1 or more hazardous waste characteristics under R 299.9212.

(3) A person that manages household wastes that are exempt from regulation pursuant to R 299.9204(2)(a) and are also of the same type as the universal wastes identified in subrule (1) of this rule or conditionally exempt small quantity generator wastes that are exempt from regulation pursuant to R 299.9205 and are also of the same type as the universal wastes identified in subrule (1) of this rule may, at the person's option, manage the wastes pursuant to this rule. A person who commingles household wastes or conditionally exempt small quantity generator wastes with universal waste regulated pursuant to this rule shall manage the commingled waste under the requirements of this rule.

(4) A universal waste small quantity handler shall comply with all of the following requirements:

(a) The requirements of 40 C.F.R. part 273, subpart B, except §§273.10 and 273.18(b).

(b) If the universal waste small quantity handler is self-transporting universal waste offsite, then the handler becomes the universal waste transporter for the self-transportation activities and shall comply with the requirements of subrule (6) of this rule while transporting the universal wastes.

(c) If the universal waste small quantity handler handles electric lamps, then all of the following additional requirements apply:

(i) The lamps shall not be crushed or broken.

(ii) The lamps shall be managed in a manner that prevents breakage or the release of any universal waste or components of universal waste by containing unbroken lamps in structurally sound packaging that is compatible with the contents of the lamps and will prevent breakage during normal handling conditions. The packaging shall remain closed and lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(iii) All of the following shall be done with respect to a release of universal waste or components of a universal waste, including lamp fragments or residues, and all lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment:

(A) The release of universal waste or components of a universal waste, including lamp fragments or residues, and all lamps that show evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment shall be immediately contained in packaging that is structurally sound and compatible with the contents of the lamps. The packaging shall remain closed once the material has been contained and shall lack evidence of leakage, spillage, or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(B) A determination shall be made whether any of the materials resulting from the release or the lamps that show evidence of breakage, leakage, or damage that

could cause the release of mercury or other hazardous constituents to the environment are hazardous waste, and if the released materials or lamps are hazardous waste, then the released materials shall be managed pursuant to the applicable requirements of the act and these rules.

(iv) The lamps or packaging in which the lamps are contained shall be labelled with the words "universal waste electric lamps," "waste electric lamps," or "used electric lamps."

(d) If the universal waste small quantity handler handles mercury switches, mercury thermometers, or waste devices which contain only elemental mercury as the hazardous waste constituent, then 40 C.F.R. §273.13(c) shall be applicable to the mercury switches, mercury thermometers, and waste devices which contain only elemental mercury as the hazardous waste constituent.

(e) If the universal waste small quantity handler manages pharmaceuticals, then all of the following additional requirements shall apply:

(i) The pharmaceuticals shall be managed in a manner that prevents releases of any universal waste or component of a universal waste to the environment. The pharmaceuticals shall be contained in a container that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the pharmaceutical, and lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable circumstances, or if the container does not meet these conditions, is overpacked in a container that does meet these conditions.

(ii) If a release of pharmaceuticals or component of pharmaceuticals occurs, the release shall be immediately cleaned up and properly characterized for disposal.

(iii) A universal waste handler may disassemble packaging and sort pharmaceuticals.

(iv) Incompatible pharmaceuticals shall be segregated. Adequate distance shall be employed to prevent the contact of incompatible materials.

(f) If the universal waste small quantity handler manages consumer electronics, then all of the following additional requirements apply:

(i) The consumer electronics shall be managed in a manner that prevents breakage or the release of any universal waste or components of universal waste by containing the consumer electronics in packaging that will prevent breakage during normal handling conditions.

(ii) Label the outer packaging or container with the words "universal waste consumer electronics" or "universal waste electronics."

(iii) Properly contain, classify, and dispose of releases and potential releases of consumer electronics and residues.

(g) A universal waste small quantity handler handling consumer electronics may perform any of the following activities and shall still be regulated as a universal waste small quantity handler:

(i) Repair the consumer electronics for potential direct reuse.

(ii) Remove other universal wastes from the consumer electronics.

(iii) Remove individual modular components for direct reuse.

(h) If the universal waste small quantity handler manages antifreeze, then all of the following additional requirements shall apply:

(i) The antifreeze shall be managed in a manner that prevents releases of any universal waste or component of a universal waste to the environment.

(ii) The antifreeze shall be contained in 1 or more of the following manners:

(A) A container that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(B) A container that does not meet the requirements of subparagraph (A) of this paragraph, provided that the container is overpacked in a container that does meet the requirements of subparagraph (A) of this paragraph.

(C) A tank that meets the requirements of 40 C.F.R. part 265, subpart J, except for 40 C.F.R. §§265.197(c), 265.200, and 265.201.

(D) A transport vehicle or vessel that remains closed, except to add or remove universal waste, is structurally sound, is compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonable foreseeable conditions.

(iii) If a release of antifreeze or a component of antifreeze occurs, the release shall be immediately cleaned up and properly characterized for disposal.

(iv) The containers or tanks used to manage the antifreeze shall be labeled with the words "universal waste antifreeze," "waste antifreeze," or "used antifreeze."

(5) A universal waste large quantity handler shall comply with all of the following requirements:

(a) Maintain the universal waste large quantity handler designation through the end of the calendar year in which a total of 5,000 kilograms or more of universal waste is accumulated.

(b) The requirements of 40 C.F.R. part 273, subpart C, except §§273.30 and 273.38(b).

(c) If the universal waste large quantity handler is self-transporting universal waste off site, then the handler becomes the universal waste transporter for the self-transportation activities and shall comply with the requirements of subrule (6) of this rule while transporting the universal wastes.

(d) If the universal waste large quantity handler handles electric lamps, all of the additional requirements of subrule (4)(c) of this rule.

(e) If the universal waste large quantity handler handles mercury switches, mercury thermometers, or waste devices which contain only elemental mercury as the hazardous waste constituent, then 40 C.F.R. §273.33(c) shall be applicable to the mercury switches, mercury thermometers, and waste devices which contain only elemental mercury as the hazardous waste constituent.

(f) If the universal waste large quantity handler handles pharmaceuticals, all of the additional requirements of subrule (4)(e) of this rule.

(g) If the universal waste large quantity handler handles consumer electronics, all of the additional requirements of subrules (4)(f) and (g) of this rule.

(h) If the universal waste large quantity handler handles antifreeze, all of the additional requirements of subrule (4)(h) of this rule.

(6) A universal waste transporter shall comply with both of the following requirements:

- (a) The requirements of 40 C.F.R. part 273, subpart D, except §§273.50 and 273.53.
- (b) Store universal wastes at a universal waste transfer facility for 10 days or less. If the transporter stores universal wastes for more than 10 days, then the transporter becomes a universal waste handler and shall comply with the applicable requirements of subrules (4) and (5) of this rule while storing the universal wastes.
- (7) Except as provided for in subrules (8) and (9) of this rule, an owner or operator of a destination facility shall comply with all of the following requirements:
- (a) The requirements of parts 5 to 8 of these rules and the notification requirements undersection 3010 of RCRA.
- (b) The requirements of 40 C.F.R. §§273.61 and 273.62.
- (c) The requirements of the act and these rules if the owner or operator generates waste as a result of recycling universal waste.
- (8) An owner or operator of a destination facility that recycles a particular universal waste without storing the universal waste before recycling shall comply with R 299.9206(1)(c).
- (9) An owner or operator of a destination facility that stores electric lamps before recycling the electric lamps at the facility shall comply with R 299.9206(5).
- (10) A person who manages universal waste that is imported from a foreign country into the United States shall comply with the following applicable requirements immediately after the universal waste enters the United States:
- (a) The requirements of subrule (4) of this rule if a small quantity handler of universal waste.
- (b) The requirements of subrule (5) of this rule if a large quantity handler of universal waste.
- (c) The requirements of subrule (6) of this rule if a transporter of universal waste.
- (d) The requirements of subrules (7) to (9) of this rule if a universal waste destination facility.
- (e) The requirements of this rule and R 299.9312 if managing universal waste that is imported from an organization for economic cooperation and development country specified in 40 C.F.R. §262.58(a)(1).
- (11) The provisions of 40 C.F.R. part 273, subparts B to E, except §§273.10, 273.18(b), 273.30, 273.38(b), 273.50, 273.53, and 273.60, are adopted by reference in R 299.11003. For the purposes of the adoption of these provisions, the term "department" shall replace the term "EPA," except in 40 C.F.R. §§273.20(b) and (c), 273.32(a)(3), 273.40 (b) and (c), and 273.56, the term "director" shall replace the term "regional administrator," the term "R 299.9212" shall replace the term "40 CFR part 261, subpart C," the term "R 299.9306" shall replace the term "40 CFR 262.34," the term "part 3 of these rules" shall replace the term "40 CFR part 262," and the term "parts 2 to 8 of these rules" shall replace the term "40 CFR parts 260 through 272."

History: 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 MR 5, Eff. Mar. 17, 2008.

R 299.9229 Petitions to amend list of universal wastes.

Rule 229. (1) A person who seeks to add a hazardous waste or a category of hazardous waste to the list of universal wastes in R 299.9228 may petition the department for a regulatory amendment under this rule and 40 C.F.R. §260.20. (2) A petition filed pursuant this rule shall include all of the following:

(a) A demonstration that regulation under the provisions of R 299.9228 is appropriate for the waste or category of waste.

(b) A demonstration that regulation under the provisions of R 299.9228 will improve the management practices for the waste or category of waste.

(c) A demonstration that regulation under the provisions of R 299.9228 will improve implementation of the hazardous waste management program.

(d) The information listed in 40 C.F.R. §260.20(b).

(e) Information addressing the following factors as appropriate for the waste or category of waste:

(i) Whether the waste or category of waste, as generated by a wide variety of generators, is listed pursuant to the provisions of R 299.9213 or R 299.9214 or, if not listed, what proportion of the hazardous waste stream exhibits 1 or more of the hazardous characteristics identified in R 299.9212. If a characteristic hazardous waste is added to the list of universal wastes in R 299.9228 using a generic name to identify the waste category, then the definition of the universal waste shall include only the hazardous waste portion of the waste category. Only the portion of the waste stream that exhibits 1 or more hazardous characteristics is subject to the universal waste requirements of R 299.9228.

(ii) Whether the waste or category of waste is commonly generated by a wide variety of establishments or whether it is exclusive to a specific industry or group of industries.

(iii) Whether the waste or category of waste is generated by a large number of generators and is frequently generated in relatively small quantities by each generator.

(iv) Whether systems to be used for collecting the waste or category of waste would ensure close stewardship of the waste.

(v) Whether the risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes and whether specific management standards proposed or referenced by the petitioner would be protective of human health and the environment during the accumulation and transport.

(vi) Whether regulation of the waste or category of waste under R 299.9228 will increase the likelihood that the waste will be diverted from nonhazardous waste management systems to recycling, treatment, or disposal in compliance with subtitle C of RCRA.

(vii) Whether regulation of the waste or category of waste under R 299.9228 will improve implementation of, and compliance with, the hazardous waste management program.

(viii) Other factors as may be appropriate.

(3) The department will evaluate and grant or deny a petition filed pursuant to this rule using the factors listed in subrule (2) of this rule. The department may require additional information as necessary to evaluate the merits of the petition. The decision to grant or deny a petition will be based on the weight of evidence showing that

regulation under R 299.9228 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste management program.

(4) The provisions of 40 C.F.R. §260.20 are adopted by reference IN R 299.11003.

History: 1996 AACS.

R 299.9230 Comparable and syngas fuels exclusion.

Rule 230. (1) Wastes that meet the following comparable or syngas fuel requirements are not considered wastes for the purposes of the act and these rules:

(a) For comparable fuels, all of the following comparable fuel specifications:

(i) The waste has a heating value of at least 5,000 BTU per pound.

(ii) The waste has a maximum viscosity of 50 CS, as fired.

(iii) For compounds listed in table 1 of 40 C.F.R. §261.38, the specification levels and minimum required detection limits specified in 40 C.F.R. §261.38.

(b) For synthesis gas fuel that is generated from a hazardous waste, all of the following syngas fuel specifications:

(i) The waste has a minimum BTU value of 100 BTU per standard cubic foot.

(ii) The waste contains less than 1 part per million by volume of total halogens.

(iii) The waste contains less than 300 parts per million by volume of total nitrogen other than diatomic nitrogen (N₂).

(iv) The waste contains less than 200 parts per million by volume of hydrogen sulfide.

(v) The waste contains less than 1 part per million by volume of each hazardous constituent in the target list 40 C.F.R. part 261, appendix VIII.

(2) Wastes that meet comparable fuel or syngas fuel specifications provided in subrule (1) of this rule are excluded from the definition of waste provided that all of the requirements of 40 C.F.R. §261.38(c) are met.

(3) The provisions of 40 C.F.R. §261.38, except for 40 C.F.R. §261.38(a) and (b), are adopted by reference in R 299.11003. For the purposes of this adoption, the word "waste" shall replace the words "solid waste," the word "director" shall replace the words "state RCRA director," "state CAA director," and "regional director," the words "part 6 of these rules" shall replace the words "subpart O of parts 264 or 265 of this chapter," the reference "R 299.9306" shall replace the reference "§262.34," and the reference "R 299.9206(1)" shall replace the reference "§261.6(c)."

History: 2000 AACS.

R 299.9231 Exclusions and exemptions for CRTs.

Rule 231. (1) Used, broken CRTs are not considered wastes prior to processing if all of the following conditions are met:

(a) The CRTs are destined for recycling.

(b) The CRTs are stored in a building with a roof, floor, and walls or are placed in a container that is constructed, filled, and closed to minimize the release of CRT glass, including fine solid materials, to the environment.

(c) Each container in which the CRTs are contained shall be labeled or marked clearly with the phrase "Do not mix with other glass materials" and either "Used cathode ray tube(s)-contains leaded glass" or "Leaded glass from televisions or computers."

(d) The CRTs are transported in a container that is constructed, filled, and closed to minimize the release of CRT glass, including fine solid materials, to the environment and the container is labeled in accordance with the requirements of subdivision (c) of this subrule.

(e) The CRTs are not speculatively accumulated or used in a manner constituting disposal. If the CRTs are used in a manner constituting disposal, they shall be managed in accordance with R 299.9801.

(f) The requirements of 40 C.F.R. §261.39(a)(5) if the CRTs are being exported.

(2) Used, broken CRTs undergoing processing are not considered wastes if all of the following conditions are met:

(a) The requirements of subdivision (e) of subrule (1) of this rule.

(b) All CRT processing shall be performed within a building with a roof, floor, and walls.

(c) All CRT processing shall be performed at temperatures that do not volatilize the lead from the CRTs.

(3) Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or lead smelter after processing is not a waste unless it is speculatively accumulated.

(4) Glass from used CRTs that is used in a manner constituting disposal is not excluded from regulation under this rule and shall be subject to the requirements of R 299.9801.

(5) Used, intact CRTs exported for recycling are not considered wastes if all of the following conditions are met:

(a) The requirements of 40 C.F.R. §261.39(a)(5).

(b) The CRTs are not speculatively accumulated.

(6) Persons who export used, intact CRTs for reuse shall comply with the requirements of 40 C.F.R. §261.41.

(7) The provisions of 40 C.F.R. §§261.39(a)(5) and 261.41 are adopted by reference in R 299.11003. For the purposes of these adoptions, the term "site identification number" shall replace the term "EPA ID number."

History: 2008 AACS.

PART 3. GENERATORS OF HAZARDOUS WASTE

R 299.9301 Applicability.

Rule 301. (1) This part establishes requirements for generators of hazardous waste.

(2) The provisions of R 299.9205(5) shall be used to determine the applicability of the requirements of this part that are dependent on calculations of the quantity of hazardous waste generated each calendar month.

(3) A generator who treats, stores, or disposes of hazardous waste on-site shall comply with all of the following requirements with respect to that waste:

(a) The provisions of R 299.9302, R 299.9303, R 299.9306, R 299.9307(1) and (5), and R 299.9308(4).

(b) The applicable requirements of parts 5, 6, 7, and 8 of these rules for the treatment, storage, and disposal.

(c) The provisions of R 299.9204(3)(b), if applicable.

(4) Any person who imports hazardous waste into the United States shall comply with the standards in this part that are applicable to generators.

(5) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in this part.

(6) In addition to complying with the provisions of this part, a generator who uses his or her own vehicle to transport hazardous waste shall comply with the applicable requirements of part 4 of these rules.

(7) Any person who exports or imports federal hazardous waste subject to the manifesting requirements of part 3 of these rules or subject to the universal waste provisions of R 299.9228, to or from the countries listed in 40 C.F.R. §262.58(a)(1) for the purpose of recovery shall comply with the provisions of R 299.9312.

(8) Persons responding to an explosives or munitions emergency in accordance with R 299.9503(2) are not required to comply with the standards in this part.

History: 1985 AACCS; 1988 AACCS; 1994 AACCS; 1996 AACCS; 1998 AACCS; 2000 AACCS.

R 299.9302 Hazardous waste determination and level of management.

Rule 302. (1) A person who generates a waste as defined in R 299.9202 shall determine if that waste is a hazardous waste using the following method:

(a) Determine if the waste is excluded from regulation pursuant to the provisions of R 299.9204(1) or (2). If the waste is not excluded, the generator shall determine if the waste is listed as hazardous pursuant to the provisions of R 299.9213 and R 299.9214.

(b) For the purposes of complying with the provisions of 40 C.F.R. part 268, or if the waste is not listed as a hazardous waste, the generator shall determine if the waste meets 1 of the characteristics of hazardous waste pursuant to the provisions of R 299.9212 by doing either of the following:

(i) Testing the waste according to the methods set forth in the provisions of R 299.9212 or according to an equivalent method approved by the director pursuant to the provisions of R 299.9215.

(ii) Applying knowledge of the hazardous characteristics of the waste in light of the materials or processes used.

(2) If the waste is determined to be hazardous, the generator shall refer to parts 2 to 6 and 8 of these rules for possible exclusions or restrictions that pertain to the management of his or her specific waste.

(3) In cases where the general character of a waste changes due to changes in the materials or processes involved in its generation, the evaluation pursuant to the provisions of subrule (1) of this rule shall be repeated immediately by the generator.

History: 1985 AACS; 1988 AACS; 1994 AACS.

R 299.9303 Site identification numbers.

Rule 303. (1) A generator shall not treat or store, dispose of, or transport or offer for transportation, hazardous waste without having received a site identification number from the regional administrator or the regional administrator's designee.

(2) A generator who has not received a site identification number may obtain one by applying to the regional administrator or the regional administrator's designee. Upon receiving the request, the administrator shall assign a site identification number to the generator.

(3) A generator shall not offer his or her hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received a site identification number.

(4) Applications for site identification numbers shall be made on state form EQP5150 and signed pursuant to 40 C.F.R. §270.11(a)(1) to (3).

History: 1985 AACS; 1996 AACS; 1998 AACS; 2004 AACS.

R 299.9304 Manifest requirements.

Rule 304. (1) A hazardous waste generator who transports, or offers for transport, a hazardous waste for off-site treatment, storage, or disposal, or a treatment, storage, or disposal facility who offers for transport a rejected hazardous waste load, shall do all of the following:

(a) Use a manifest which is printed and obtained pursuant to 40 C.F.R. §§262.20 and 262.21.

(b) Prepare a manifest in accordance with 40 C.F.R. §262.27 and the instructions in the appendix to 40 C.F.R. part 262 before transporting the waste offsite.

(c) Use a transporter or be a transporter, if a generator transports his or her own hazardous waste, who is registered and permitted pursuant to Act 138 pursuant to part 4 of these rules.

(2) The generator shall do all of the following with respect to the manifest:

(a) Retain 1 copy pursuant to R 299.9307(3).

(b) Submit 1 legible copy to the director or his or her designee, which shall be postmarked not later than 10 days after the month in which shipment was made.

(c) For all out-of-state shipments, if the designated facility fails to provide a legible and timely copy of the manifest to the director or his or her designee, then the generator shall provide the copy to the director or his or her designee upon request.

(3) The requirements of this rule do not apply to hazardous waste that is produced by a generator of more than 100 kilograms, but less than 1,000 kilograms, in a calendar month if both of the following requirements are met:

(a) The waste is reclaimed under a contractual agreement pursuant to which the type of waste and frequency of shipments are specified in the agreement and the vehicle used to transport the waste to the recycling facility and to deliver the regenerated material back to the generator is owned and operated by the reclaimer of the waste.

(b) The generator maintains a copy of the reclamation agreement in his or her files for a period of not less than 3 years after termination or expiration of the agreement.

(4) A hazardous waste generator who authorizes a transporter to commingle his or her hazardous waste pursuant to R 299.9405(2) or (3) shall add the letters "CS" to the end of the hazardous waste number or numbers used on the manifest, as specified in R 299.9405(2)(f), or the letters "CD" to the end of the hazardous waste number or numbers used on the manifest, as specified in R 299.9405(3)(f).

(5) The requirements of this rule and R 299.9305(d) do not apply to the transport of hazardous waste shipments on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such property is contiguous property divided by a public or private right-of-way. Notwithstanding R 299.9401, the generator or transporter shall comply with the requirements for transporters set forth in R 299.9410 in the event of a discharge of hazardous waste on a public or private right-of-way.

(6) The provisions of 40 C.F.R. §§ 262.20, 262.21, and 262.27 and the appendix to part 262 are adopted by reference in R 299.11003. For the purposes of these adoptions, the words "site identification number" shall replace the words "EPA identification number," the term "R 299.9207" shall replace the term "40 CFR 261.7," and the term "264.72" shall replace "265.72."

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9305 Pre-transport requirements.

Rule 305. (1) Before transporting hazardous waste or offering hazardous waste for transportation off site, a generator shall do all of the following:

(a) Package the waste in accordance with the applicable DOT regulations on packaging under the provisions of 49 C.F.R. parts 173, 178, and 179.

(b) Label each package in accordance with the applicable DOT regulations on hazardous materials under the provisions of 49 C.F.R. part 172.

(c) Mark each package of hazardous waste in accordance with the applicable DOT regulations under the provisions of 49 C.F.R. part 172.

(d) Mark each container of 119 gallons or less used in such transportation with the following:

(i) The following words and information displayed in accordance with the provisions of 49 C.F.R. §172.304:HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address _____
Generator's Site Identification Number _____
Manifest Tracking Number _____

(ii) The hazardous waste number identifying the waste.

(e) Placard or offer the initial transporter the appropriate placards according to DOT regulations for hazardous materials under the provisions of 49 C.F.R. part 172, subpart F.

(2) The provisions of 49 C.F.R. parts 172, 173, 178, and 179 are adopted by reference in R 299.11004.

History: 1985 AACCS; 2008 MR 5 Eff. Mar. 17, 2008.

R 299.9306 Accumulation time.

Rule 306. (1) Except as provided in subrules (4), (5), (6), (7), (8), (9), and (10) of this rule, a generator may accumulate hazardous waste on site for 90 days or less without a construction permit or an operating license if he or she complies with all of the following requirements:

(a) The waste is managed pursuant to 1 or more of the following methods:

(i) The waste is placed in containers, the generator complies with 40 C.F.R. part 265, subparts I, AA, BB, and CC, the generator complies with the containment requirements of 40 C.F.R. §264.175, and the generator documents the inspections required pursuant to 40 C.F.R. §265.174. The generator shall maintain the inspection records on site for a period of not less than 3 years from the date of the inspection. The period of retention shall be extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director. If the generator is unable to comply with 40 C.F.R. §265.176 or the authority having jurisdiction determines that an alternative to the requirements of 40 C.F.R. §265.176 is more protective of human health and the environment, then compliance with 40 C.F.R. §265.176 is considered achieved by meeting the requirements of the fire prevention code and its rules. A copy of an approval letter indicating that the containers are stored in compliance with the fire prevention code and signed by the authority having jurisdiction shall be maintained at the generator's site.

(ii) The waste is placed in tanks, the generator complies with 40 C.F.R. part 265, subparts J, AA, BB, and CC, except for §§265.197(c) and 265.200, and the generator complies with R 299.9615, except for R 299.9615(1). For the purposes of this rule, the references in R 299.9615 to 40 C.F.R. part 264 shall be replaced by references to 40 C.F.R. part 265.

(iii) The waste is placed on drip pads, the generator complies with 40 C.F.R. part 265, subpart W, and the generator maintains the following records at the facility:

(A) A description of the procedures that shall be followed to ensure that all wastes are removed from the drip pad and associated collection system at least once every 90 days.

(B) Documentation of each waste removal, including the quantity of waste that is removed from the drip pad and the sump or collection system and the date and time of removal.

(b) The date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.

(c) While being accumulated on site, each container and tank is labeled with the words "Hazardous Waste."

(d) The generator complies with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, and 40 C.F.R. §265.16 and 40 C.F.R. §268.7(a)(5). If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

(i) The name and telephone number of the person who is reporting the incident.

(ii) The name, address, telephone number, and site identification number of the generator.

(iii) The date, time, and type of incident.

(iv) The name and quantity of the material or materials involved and released.

(v) The extent of injuries, if any.

(vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.

(vii) An assessment of actual or potential hazards to human health or the environment.

(viii) The immediate response action taken.

(e) The area where waste is accumulated is protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.

(f) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(g) The closure standards of 40 C.F.R. §§265.111 and 265.114.

(2) A generator may, without a construction permit or an operating license issued pursuant to part 111 of the act and without complying with subrule (1) of this rule, accumulate as much as 55 gallons of hazardous waste or 1 quart of an acute hazardous waste that is identified in table 203a, 204a, 204b, or 205a, or a severely toxic hazardous waste that is identified in table 202 in containers at or near any point of generation where wastes initially accumulate and which is under the control of the operator of the process that generates the waste if he or she complies with 40 C.F.R. §§265.171, 265.172, and 265.173 and marks his or her containers with the hazardous waste number of the waste and the words "Hazardous Waste." A generator may substitute the chemical name for the hazardous waste number of the waste on his or her containers at or near the point of generation to comply with this subrule. A generator who accumulates hazardous waste, an acute hazardous waste that is listed in table 203a, 204a, 204b, or 205a, or a severely toxic hazardous waste that is listed in table 202 in excess of the amounts listed in this subrule at or near any point of generation shall, with respect to that amount of excess waste, comply, within 3 days,

with the requirements of this subrule or other applicable provisions of this part. During the 3-day period, the generator shall continue to comply with the requirements of this rule. The generator shall mark the container that holds the excess accumulation of hazardous waste with the date that the excess amount began accumulating and the hazardous waste number of the waste.

(3) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of parts 5, 6, and 7 of these rules, unless the generator has been granted an extension of the time period or except as provided in subrules (4), (5), (6), (7), (8), (9), and (10) of this rule. An extension of up to 30 days may be granted by the director, or his or her designee, if hazardous wastes must remain on site for more than 90 days due to unforeseen, temporary, and uncontrollable circumstances.

(4) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who does not generate or accumulate acute hazardous waste or severely toxic hazardous waste that exceeds the volumes specified in R 299.9205(1)(b) or (c) may accumulate hazardous waste on site for 180 days or less without a construction permit or an operating license or without being an existing facility pursuant to R 299.9502 if all of the following provisions are complied with:

(a) The quantity of waste accumulated on site does not exceed 6,000 kilograms.

(b) The generator does either of the following:

(i) Places the waste in containers and complies with 40 C.F.R. part 265, subpart I, except for §§265.176 and 265.178, and, if the quantity of waste accumulated on site exceeds 1,000 kilograms, complies with the containment requirements of 40 C.F.R. §264.175.

(ii) Places the waste in tanks and complies with 40 C.F.R. §265.201 and, if the quantity of waste accumulated on site exceeds 1,000 kilograms, complies with the containment requirements of 40 C.F.R. §§265.191, 265.192, 265.193, and 265.196.

(iii) Places the waste on a drip pad and complies with 40 C.F.R. part 265, subpart W, and maintains the following records on site:

(A) A description of the procedures that will be followed to ensure that all of the wastes are removed from the drip pad and associated collection system at least once every 90 days.

(B) Documentation of each waste removal, including the quantity of waste that is removed from the drip pad and the sump or collection system and the date and time of removal.

(c) The generator ensures that the date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.

(d) The generator on each container ensures that while being accumulated on site, each container and tank is marked clearly with the words "Hazardous Waste."

(e) The generator complies with 40 C.F.R. part 265, subpart C, and 40 C.F.R. §268.7(a)(5).

(f) The generator ensures that, at all times, there is at least one employee either on the premises or on call who is responsible for coordinating all emergency response measures specified in subdivision (i) of this subrule. The employee is the

emergency coordinator and, if on call, shall be available to respond to an emergency by reaching the facility within a short period of time.

(g) The generator posts, next to the telephone, the name and telephone number of the emergency coordinator; the location of fire extinguishers and spill control material and, if present, fire alarm; and the telephone number of the fire department, unless the facility has a direct alarm.

(h) The generator ensures that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(i) The emergency coordinator or his or her designee responds to any emergencies that arise. An emergency coordinator shall respond as follows:

(i) If there is a fire, call the fire department or attempt to extinguish the fire using a fire extinguisher.

(ii) If there is a spill, contain the flow of hazardous waste to the extent possible and, as soon as is practicable, clean up the hazardous waste and any contaminated materials or soils.

(iii) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. For releases that could threaten human health outside the individual site of generation and spills that have reached surface waters, the generator shall also immediately notify the national response center at its 24-hour, toll-free number - 800-424-8802. The notifications shall include all of the following information:

(A) The name and telephone number of the person who is reporting the incident.

(B) The name, address, telephone number, and site identification number of the generator.

(C) The date, time, and type of incident.

(D) The name and quantity of the material or materials involved and released.

(E) The extent of injuries, if any.

(F) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.

(G) An assessment of actual or potential hazards to human health or the environment.

(H) The immediate response action taken.

(j) The generator ensures that the area where the waste is accumulated is protected from weather, fire, physical damage, and vandals.

(k) The generator ensures that hazardous waste accumulation is conducted so hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(5) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who must transport his or her waste, or offer his or her waste for transportation, over a distance of 200 miles or more for off-site treatment, storage, or disposal may accumulate hazardous waste

on site for 270 days or less without a construction permit or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with subrule (4) of this rule.

(6) A generator who generates more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month and who accumulates hazardous waste in quantities of more than 6,000 kilograms or accumulates hazardous waste for more than 180 days, or for more than 270 days if he or she must transport the waste, or offer the waste for transportation, over a distance of 200 miles or more, is an operator of a storage facility and is subject to the requirements of parts 5 and 6 of these rules, unless he or she has been granted an extension to the 180-day or, if applicable, 270-day period. The director or his or her designee may grant an extension if hazardous waste must remain on site for more than 180 days or 270 days, if applicable, due to unforeseen, temporary, and uncontrollable circumstances. The director or his or her designee may grant an extension of up to 30 days on a case-by-case basis.

(7) A generator who generates 1,000 kilograms or more of hazardous waste in a calendar month and who also generates wastewater treatment sludges from electroplating operations that meet the listing description for F006 waste, may accumulate F006 on site for more than 90 days, but not more than 180 days, without a construction permit or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with all of the following requirements:

(a) The generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering the F006 waste or are otherwise released to the environment before its recycling.

(b) The F006 waste is legitimately recycled through metals recovery.

(c) The quantity of F006 waste on site does not exceed 20,000 kilograms at any one time.

(d) The F006 waste is managed pursuant to either of the following requirements:

(i) The F006 waste is placed in containers and the generator complies with the applicable requirements of 40 C.F.R. part 265, subparts I, AA, BB, and CC, the containment requirements of 40 C.F.R. §264.175, and the generator documents the inspections required pursuant to 40 C.F.R. §265.174. The generator shall maintain the inspection records on site for a period of not less than 3 years from the date of the inspection. The period of retention shall be extended automatically during the course

of any unresolved enforcement action regarding the regulated activity or as requested by the director.

(ii) The F006 waste is placed in tanks and the generator complies with the applicable requirements of 40 C.F.R. part 265, subparts J, AA, BB, and CC, except for 40 C.F.R. §§265.197(c) and 265.200, and the generator complies with R 299.9615, except for R 299.9615(1). For the purposes of this rule, the references in R 299.9615 to "40 C.F.R. part 264" shall be replaced by references to "40 C.F.R. part 265."

(e) The date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container.

(f) While being accumulated on site, each container and tank is labeled or marked clearly with the words "hazardous waste."

(g) The generator complies with the requirements for owners or operators in 40 C.F.R. part 265, subparts C and D, 40 C.F.R. §265.16, and 40 C.F.R. §268.7(a)(5). If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or groundwater, then the generator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (i) The name and telephone number of the person who is reporting the incident.
- (ii) The name, address, telephone number, and site identification number of the generator.
- (iii) The date, time, and type of incident.
- (iv) The name and quantity of the material or materials involved and released.
- (v) The extent of injuries, if any.
- (vi) The estimated quantity and disposition of recovered materials that resulted from the incident, if any.
- (vii) An assessment of actual or potential hazards to human health or the environment.
- (viii) The immediate response action taken.

(h) The area where waste is accumulated is protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.

(i) Hazardous waste accumulation is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(j) The closure standards of 40 C.F.R. §§265.111 and 265.114.

(8) A generator who generates 1,000 kilograms or more of hazardous waste in a calendar month and who also generates wastewater treatment sludges from electroplating operations that meet the listing description for F006 waste, and who must transport this waste or offer this waste for transportation over a distance of 200 miles or more for off-site metals recovery may accumulate F006 on site for more than 90 days, but not more than 270 days, without a construction permit or an operating license or without being an existing facility pursuant to R 299.9502, if he or she complies with subrule (7) of this rule.

(9) A generator who accumulates F006 waste pursuant to subrule (7) of this rule and who accumulates F006 for more than 180 days, or who accumulates more than 20,000 kilograms of F006 on site, is an operator of a storage facility and is subject to parts 5, 6, and 7 of these rules unless the generator has been granted an extension to the 180-day period or an exception to the 20,000 kilogram accumulation limit. Such an extension or exception may be granted by the director, or his or her designee, if F006 waste must remain on site for longer than 180 days or if more than 20,000 kilograms of F006 waste must remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the

accumulation limit may be granted at the discretion of the director, or the director's designee, on a case-by-case basis.

(10) A generator who accumulates F006 waste pursuant to subrule (8) of this rule and who accumulates F006 on site for more than 270 days, or who accumulates more than 20,000 kilograms of F006 on site, is an operator of a storage facility and is subject to parts 5, 6, and 7 of these rules unless the generator has been granted an extension to the 270-day period or an exception to the 20,000-kilogram accumulation limit. Such an extension or exception may be granted by the director, or his or her designee, if F006 waste must remain on site for longer than 270 days or if more than 20,000 kilograms of F006 waste must remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the director, or his or her designee, on a case-by-case basis.

(11) A generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that same shipment back as a rejected load or residue in accordance with the manifest discrepancy provisions of R 299.9608 may accumulate the returned waste onsite in accordance with subrules (1) and (3) or (4), (5), and (6) of this rule, depending on the amount of hazardous waste onsite in that calendar month. Upon receipt of the returned shipment, the generator shall comply with the provisions of 40 C.F.R. §262.34(m)(1) and (2).

(12) The provisions of 40 C.F.R. §§262.34(m)(1) and (2), 264.175, and 265.16, and part 265, subparts C, D, I, and J, are adopted by reference in R 299.11003. For purposes of the adoption of 40 C.F.R. §265.56(j), the word "director" shall replace the words "regional administrator."

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9307 Generator recordkeeping.

Rule 307. (1) A generator shall keep records of any test results, waste analyses, or other determinations made pursuant to R 299.9302 for not less than 3 years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.

(2) A generator who is requested by the director to submit evaluation results shall provide the required information within 30 days after receipt of the request. The records shall include all of the following information:

- (a) The type of waste and the source or process from which it was produced.
- (b) The chemical composition of the waste and the anticipated fluctuations in its chemical composition.
- (c) If tests were conducted in the evaluation, all of the following information shall be included:
 - (i) The sampling procedure and the reasons for determining that the sample is representative of the waste.
 - (ii) The results of all tests conducted.

(iii) The accuracy and precision of any tests conducted.

(3) A generator shall keep a copy of each manifest signed pursuant to R 299.9304(2) for 3 years or until he or she receives a signed copy from the designated facility which received the waste. This signed copy shall be retained as a record for not less than 3 years from the date the waste was accepted by the initial transporter.

(4) A generator shall keep a copy of the data submitted under R 299.9308(1), exception report, or other report required by the director, or his or her designee, for a period of not less than 3 years from the due date of the report.

(5) A generator shall keep the documentation required pursuant to R 299.9503(1)(i)(ix) for not less than 3 years from the date that the waste was treated.

(6) The periods of retention referred to in this rule are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the director.

(7) A generator who generates more than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month is exempt from the recordkeeping requirements of subrule (4) of this rule.

History: 1985 AACS; 1988 AACS; 1996 AACS; 1998 AACS; 2004 AACS; 2008 AACS.

R 299.9308 Generator reporting.

Rule 308. (1) A generator of more than 1,000 kilograms of hazardous waste shall provide to the director or the director's designee the data necessary for the department to prepare and submit Michigan's hazardous waste report as required to the EPA. The data shall be submitted on a form and in a format specified by the director or the director's designee. The data shall be acquired from manifests as required in Parts 3 and 6 of the rules, information required in subule (2) of this rule, and or other reporting mechanisms used by the director to obtain the information specified in 40 C.F.R. §262.41(a)(1) to (8) and by the EPA as part of a federal information collection request published in conjunction with 40 C.F.R. §262.41(a).

(2) Any generator of more than 1,000 kilograms who treats, stores, or disposes of hazardous waste on-site shall submit data covering those wastes in accordance with parts 5 and 6 of these rules. Reporting for exports of hazardous waste is not required on the biennial report form. A separate annual report requirement is set forth in the provisions of 40 C.F.R. §262.56.

(3) A generator of more than 1,000 kilograms of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter shall do both of the following:

(a) Contact the transporter or the owner or operator of the designated facility to determine the status of the hazardous waste.

(b) If the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter, then the generator shall submit an exception report to the director, or his or her designee, and the EPA regional

administrator for the region in which the generator is located. The exception report shall include both of the following:

(i) A legible copy of the manifest for which the generator does not have confirmation of delivery.

(ii) A cover letter signed by the generator, or the generator's authorized representative, explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(4) A generator shall furnish periodic reports of hazardous waste generated, stored, transferred, treated, disposed of, or transported for treatment, storage, or disposal required by the director or his or her designee.

(5) A generator of more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the director or his or her designee and the regional administrator for the region in which the generator is located.

(6) A generator of more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste in a calendar month is subject to the following requirements:

(a) The provisions of 40 C.F.R. §262.40(a), (c), and (d).

(b) Additional reporting requirements pursuant to the provisions of 40 C.F.R. §262.43.

History: 1985 AACS; 1988 AACS; 1991 AACS; 1998 AACS; 2000 AACS; 2008 AACS.

R 299.9309 Exports of hazardous waste.

Rule 309. (1) Any person who exports hazardous waste to a foreign country shall comply with 40 C.F.R. part 262, subpart E, except 40 C.F.R. §§262.54 and 262.55.

(2) A primary exporter shall comply with the manifest requirements of R 299.9304, except as follows:

(a) In place of the name, site address, and site identification number of the designated permitted facility, the primary exporter shall enter the name and site address of the consignee.

(b) In place of the name, site address, and site identification number of the permitted alternate facility, the primary exporter may enter the name and site address of any alternative consignee.

(c) In the international shipments block, the primary exporter shall check the export box and enter the point of exit, both city and state, from the United States.

(d) The following statement shall be added to the end of the first sentence of the certification set forth on the manifest form: "and conforms to the terms of the attached EPA acknowledgement of consent."

(e) The primary exporter shall require the consignee to confirm, in writing, the delivery of the hazardous waste to that facility and to describe any significant discrepancies, as defined in R 299.9608, between the manifest and the shipment. A

copy of the manifest signed by such facility may be used to confirm delivery of the hazardous waste.

(f) In place of the requirements of R 299.9304(1)(e), where a shipment cannot be delivered for any reason to the designated or alternate consignee, the primary exporter shall do either of the following:

(i) Renotify EPA of a change in the conditions of the original notification to allow shipment to a new consignee pursuant to 40 C.F.R.§262.53(c) and obtain an EPA acknowledgement of consent before delivery.

(ii) Instruct the transporter to return the waste to the primary exporter in the United States or designate another facility within the United States and instruct the transporter to revise the manifest pursuant to the primary exporter's instructions.

(g) The primary exporter shall attach a copy of the EPA acknowledgement of consent to the shipment to the manifest which shall accompany the hazardous waste shipment. For exports by rail or bulk water shipment, the primary exporter shall provide the transporter with an EPA acknowledgement of consent which shall accompany the hazardous waste, but which need not be attached to the manifest, except that for exports by bulk water shipment, the primary exporter shall attach the copy of the EPA acknowledgement of consent to the shipping paper.

(h) The primary exporter shall provide the transporter with an additional copy of the manifest for delivery to the United States customs official at the point the hazardous waste leaves the United States pursuant to 40 C.F.R.§263.20(g)(4).

(3) In place of the requirements of R 299.9308(3), a primary exporter shall file an exception report with the administrator and director if any of the following occurs:

(a) The exporter has not received a copy of the manifest signed by the transporter stating the date and place of departure from the United States within 45 days from the date the manifest was accepted by the initial transporter.

(b) Within 90 days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received.

(c) The waste is returned to the United States.

(4) The provisions of 40 C.F.R. part 262, subpart E, except 40 C.F.R.§§262.54 and 262.55, are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 2004 AACS; 2008 AACS.

R 299.9310 Hazardous waste imports.

Rule 310. (1) Any person who imports hazardous waste from a foreign country into the United States shall comply with this rule.

(2) When importing hazardous waste, a person shall meet all of the requirements of R 299.9304 for the manifest, except as follows:

(a) In place of the generator's name, address, and site identification number, the name and address of the foreign generator and the United States importer's name, address, and site identification number shall be used.

(b) In place of the generator's signature on the certification statement, the United States importer, or his or her agent, shall sign and date the certification and obtain the signature of the initial transporter.

(c) In the international shipments block, the United States importer shall check the import box and enter the point of entry, both city and state, into the United States.

(3) The United States importer shall provide the transporter with an additional copy of the manifest to be submitted by the receiving facility to the EPA.

History: 1988 AACS; 1994 AACS; 2004 AACS; 2008 AACS.

R 299.9311 Land disposal restrictions.

Rule 311. (1) Generators of hazardous waste shall comply with the applicable requirements and restrictions of 40 C.F.R. part 268.

(2) The provisions of 40 C.F.R. part 268 are adopted by reference in R 299.11003. For purposes of this adoption, the word "director" shall replace the words "administrator" and "assistant administrator," except in the provisions of 40 C.F.R. §§268.5, 268.6, 268.40(b), 268.42(b), and 268.44(a) to (g) and (i) to (o).

History: 1988 AACS; 1994 AACS; 2000 AACS.

R 299.9312 Transfrontier shipments of hazardous waste for recovery within the Organization for Economic Cooperation and Development.

Rule 312. (1) Persons who import or export wastes that are considered hazardous under the U.S. national procedures and that are destined for recovery operations in a country listed pursuant to the provisions of 40 C.F.R. §262.58(a)(1) shall comply with the provisions of 40 C.F.R. part 262, subpart H, except §262.80. A waste shall be considered hazardous under the U.S. national procedures if it meets the federal definition of hazardous waste in 40 C.F.R. §261.3 and it is subject to either the manifesting requirements of part 3 of these rules or the universal waste provisions of R 299.9228.

(2) Any person subject to this rule, including a notifier, consignee, or recovery facility operator, who mixes 2 or more hazardous or solid wastes or otherwise subjects 2 or more hazardous or solid wastes to physical or chemical transformation operations, and thereby creates a new hazardous waste, shall comply with the following requirements:

(a) The person shall be considered the generator of the waste and comply with the requirements of part 3 of these rules.

(b) The applicable notifier requirements of 40 C.F.R. part 262, subpart H.

(3) The provisions of 40 C.F.R. part 262, subpart H, except §262.80, are adopted by reference in R 299.11003.

History: 1998 AACS.

PART 4. TRANSPORTERS OF HAZARDOUS WASTE

R 299.9401 Scope.

Rule 401. (1) This part applies to transporters of hazardous waste if the transportation requires a manifest under part 3 of these rules, and transporters operating under R 299.9304(3).

(2) This part does not apply to on-site transportation of hazardous waste either by generators or by owners or operators of licensed hazardous waste treatment, storage, or disposal facilities.

(3) A transporter of hazardous waste shall also comply with part 3 of these rules relating to hazardous wastes, except for R 299.9307(4) and R 299.9308(1) and (2), and the accumulation time limits specified in R 299.9404(1)(b), if either of the following provisions apply to the transporter:

(a) The transporter is the United States importer of hazardous waste into the state from abroad.

(b) The transporter commingles, by placing the waste in the same container, compatible hazardous waste of different DOT shipping descriptions where the DOT hazard class or the DOT packing group differs in a manner that alters the components of the waste description on the generator's original manifest.

(4) A person who commingles hazardous waste from lab packs shall comply with parts 5, 6, and 7 of these rules if the wastes from the lab packs are mixed.

(5) A transporter of federal hazardous waste subject to the manifesting requirements of part 3 of these rules or subject to the universal waste provisions of R 299.9228 that is being imported from or exported to any of the countries listed in 40 C.F.R. §262.58(a)(1) for the purpose of recovery shall comply with R 299.9312.

(6) This part does not apply to transportation during an explosives or munitions emergency response which is conducted pursuant to R 299.9503(2).

History: 1985 AACS; 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 MR 5 Eff. Mar. 17, 2008.

R 299.9402 Site identification number.

Rule 402. A transporter shall not transport hazardous wastes without having received a site identification number.

History: 1985 AACS; 2004 AACS.

R 299.9403 Transporter requirements.

Rule 403. (1) A person shall not engage in the transportation of hazardous wastes by highway within, into, or through this state without being registered and permitted in accordance with act 138.

History: 1985 AACS; 1996 AACS; 2000 AACS.

R 299.9404 Transfer facility requirements.

Rule 404. (1) A transporter at a transfer facility shall comply with all of the following requirements:

(a) Manage vehicles and hazardous wastes so that hazardous waste and hazardous waste constituents cannot escape into the soil, directly or indirectly into surface or groundwaters, or uncontrolled into drains or sewers and so that fugitive emissions are controlled by closing, covering, or otherwise sealing containers, as required by 49 C.F.R. §173.24(b), at all times unless the container is being filled or emptied of waste or is being cleaned.

(b) Store hazardous wastes, subject to manifesting requirements, in containers meeting the applicable requirements of 49 C.F.R. parts 107 and 172 to 180 for a period of 10 days or less. Storage for a period of more than 10 days requires compliance with the treatment, storage, and disposal facility requirements of parts 5, 6, and 7 of these rules.

(c) Hazardous wastes shall not be routed to the same transfer facility more than once during the course of transportation, unless either of the following provisions applies:

(i) The load has been rejected by the treatment, storage, and disposal facility and the load is either being returned to the generator or is being sent to an alternate treatment, storage, and disposal facility.

(ii) A transporter was temporarily unable to deliver the waste for reasons unrelated to the suitability of the treatment, storage, and disposal facility to manage the waste, such as treatment, storage, and disposal facility maintenance or overbooking or delivery of the load after normal business hours, and rerouting was necessary to ensure subsequent delivery at the designated facility.

(2) A transporter who off-loads hazardous wastes during the course of transportation for the purpose of storage off of the vehicle or conveyance of waste in accordance with the provisions of R 299.9503(1)(k) shall comply with all of the following requirements.

(a) The requirements of R 299.9404(1).

(b) For new activity, prior to the activity beginning, provide notification to the department. Within 30 days of changes to information included in the notification a subsequent notification is required. The notification shall include all of the following information:

(i) The transporter name and site identification number.

(ii) The transporter mailing address.

(iii) The transporter telephone number.

(iv) The owner of the transfer facility.

(v) The location and telephone number of all of the transfer facilities.

(vi) A description of the transfer activity performed at each transfer facility location.

(c) Obtain financial capability as specified in R 299.9711 for transfer facilities.

(d) The requirements of 49 C.F.R. parts 130 and 172 to 180, and 40 C.F.R. §263.31 concerning the use and management of containers.

(e) Secondary containment shall be sufficiently impervious to prevent any hazardous waste or hazardous waste constituent released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) The requirements of 49 C.F.R. §§172.602, 172.702, 172.704, and 177.848 and 29 C.F.R. part 1910, subpart L, and §§1910.120(q) and 1910.132 to 1910.138 concerning preparedness and prevention, contingency planning and emergency procedures, and training.

(g) Maintain an inventory log that tracks manifested hazardous waste which is managed at the transfer facility by date of receipt, date of shipment off site, and manifest number. The inventory log, or similar documentation, shall also include the date of the weekly inspection of the areas where containers are stored and the results of the inspection, including, at a minimum, any evidence of container failure, the condition of secondary containment, and remediation correcting any problems noted. Except as required in subdivision (a) of this subrule, the requirements of this subrule do not apply when, during the course of transportation, there is a continuous physical link between vehicles or vehicles and pipelines for waste being off-loaded or, in the case of bulk-packagings authorized by 49 C.F.R. §173.240, the break in the link between the transport vehicles is no longer than is necessary to accomplish the immediate transfer of the bulk packagings from one vehicle to another vehicle.

(3) Transfer facility operations shall not occur at treatment, storage, and disposal facilities designated to receive the manifested hazardous wastes.

(4) The provisions of 49 C.F.R. parts 107, 130, and 171 to 180, and 29 C.F.R. part 1910, subpart L, and §§1910.120(q) and "1910.132 to 1910.138 are adopted by reference in R 299.11004.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1996 AACS; 1998 AACS; 2008 AACS.

R 299.9405 Consolidation and commingling of hazardous waste.

Rule 405. (1) A transporter consolidating containers of hazardous waste shall ensure that the original manifest for each hazardous waste container in the consolidated shipment accompanies the shipment.

(2) A transporter commingling hazardous wastes of the same DOT shipping description where the DOT hazard class and DOT packing group remain the same shall comply with all of the following requirements:

(a) The provisions of 49 C.F.R. part 173, as applicable.

(b) Conduct commingling, unless performed at the generator location at the time when the load is first received by the transporter, in a secondarily contained area that is sufficiently impervious to prevent any hazardous waste or hazardous waste constituent released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(c) Ensure that commingled wastes are destined for a single disposal facility.

(d) Ensure that incompatible wastes are not commingled.

(e) Ensure that commingled wastes do not undergo chemical or thermal change or treatment, and ensure that the resultant waste retains both the physical and chemical characteristics similar to the individual wastes before they were commingled.

(f) Ensure that the generator authorizes the commingling in accordance with R 299.9304(4) and adds the term "CS" to the end of the hazardous waste number or numbers used on the manifest, denoting the commingling activity.

(g) For bulk rail or bulk water shipments, ensure that where the commingling of wastes results in the original shipment being transported to the designated facility by more than 1 vehicle the extra copies of the manifest as provided by the generator in accordance with the provisions of R 299.9304(2)(f) and (g) accompany each of the vehicles and that the transporter prepares a DOT-approved shipping paper and attaches the shipping paper to the top of the manifest or manifests. The shipping paper shall reflect the differences from the original shipment in terms of quantity, count, and DOT-approved packaging.

(h) Ensure that where the commingling of wastes results in changes to the quantity, count, or DOT-approved packaging on the generator manifest or manifests, the transporter prepares a DOT-approved shipping paper and attaches the shipping paper to the top of the manifest or manifests. The shipping paper shall reflect the differences from the original shipment in terms of quantity, count, and DOT-approved packaging.

(i) Ensure that, where a commingled load is rejected by the designated facility, all generators contributing to the commingled load are contacted to designate an alternate facility and that the rejected commingled wastes are not returned to any single generator.

(3) A transporter commingling compatible hazardous wastes of different DOT shipping descriptions where the DOT hazard class or DOT packing group differs in a manner that alters the components of the waste description on the generator's original manifest shall comply with all of the following requirements:

(a) Comply with the requirements of subrule (2)(a) to (e) of this rule.

(b) For new activity, prior to the activity beginning, provide notification to the department. Within 30 days of changes in information included in the original notification a subsequent notification is required. The notification shall include all of the following information:

(i) The transporter name and site identification number.

(ii) The transporter mailing address.

(iii) The transporter telephone number.

(iv) The owner of the facility.

(v) If other than the generator site, the location of the facility and the telephone number where commingling activity is performed.

(vi) The description of the commingling activity performed at each facility location.

(c) Prepare a new manifest as a generator in accordance with part 3 of these rules.

(d) On the new manifest, describe the commingled load by adding the term "CD" to the end of the hazardous waste number or numbers used on the manifest.

(e) Ensure that the transporter-initiated manifest and the generator manifests accompany the shipment to the designated facility. The transporter-initiated manifest shall satisfy DOT shipping paper requirements and be segregated from the generator manifests. All generator and transporter manifests shall be signed by an authorized representative of the designated facility upon receipt of the waste.

(f) Ensure that the generator adds the term "CD" to the end of the hazardous waste number or numbers used on the manifest, prepared as required in subdivision (c) of this subrule.

(g) Comply with part 3 of these rules relating to the wastes, except for R 299.9307(4) and R 299.9308(1) and (2) and the accumulation time limits specified in R 299.9404(1)(b).

(h) Ensure that, where a commingled load is rejected by the designated facility, all other generators contributing to the load are contacted to jointly, with the transporter, designate an alternate facility and that the rejected commingled wastes are not returned to any single generator. The transporter, under this part, shares generator responsibility.

History: 1985 AACS; 1988 AACS; 1996 AACS; 1998 AACS; 2008 MR 5, Eff. Mar 17, 2008.

R 299.9406 Transporter vehicle requirements.

Rule 406. (1) A transporter shall carry a copy of the registration and permit, issued in accordance with act 138, and make it available for inspection upon request by the director or the director's designee.

(2) A transporter shall close or cover all vehicles or containers used to transport hazardous waste to prevent the escape of hazardous waste or hazardous waste constituents. A transporter shall keep the outside of all vehicles and accessory equipment free of hazardous waste or hazardous waste constituents.

(3) A transporter shall ensure that all portions of vehicles which have been in contact with hazardous waste shall be cleaned of any hazardous waste or hazardous waste constituents and purged of vapor before the transport of any products, incompatible waste, or non-waste material.

(4) A transporter shall protect hazardous waste in the transporter's possession from exposure to weather, fire, physical damage, and vandals.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1996 AACS; 1998 AACS; 2000 AACS.

R 299.9407 Transporter facility inspections.

Rule 407. (1) The department may inspect all in-state stationary facilities in which the transporter owns or holds an interest and at which routine operations associated with the transport of hazardous wastes are performed. Routine operations may include any of the following:

- (a) Vehicle storage.
- (b) Vehicle cleaning.
- (c) Routine mechanical maintenance.
- (d) Transfer operations.
- (e) Dispatching.
- (f) Recordkeeping.

- (2) The department shall determine, at the time of an inspection, all of the following:
- (a) Based on a visual inspection, whether there is evidence that hazardous wastes or hazardous waste constituents have escaped to the air, soil, surface water, groundwater, drains, or sewers.
 - (b) If vehicles are cleaned on-site, whether proper procedures exist for wash water disposal.
 - (c) Whether facilities are constructed or situated so as to minimize the possibility of the release or escape of hazardous waste or hazardous waste constituents to the soil, surface water, or groundwater.
 - (d) Whether the transporter is in compliance with other requirements of this part.

History: 1985 AACS; 1996 AACS; 2000 AACS.

R 299.9408 Transporter vehicle inspections.

Rule 408. (1) The department may inspect a vehicle to determine compliance with this part of these rules.

History: 1985 AACS; 1996 AACS; 2000 AACS.

R 299.9409 Transporter manifest and recordkeeping requirements.

Rule 409. (1) Hazardous waste transporters shall only transport hazardous waste using a manifest. Hazardous waste transporters shall comply with 40 C.F.R. part 263, subpart B, regarding the manifest system, compliance with the manifest, and recordkeeping.

(2) If the hazardous waste cannot be delivered pursuant to the manifest and 40 C.F.R. §263.21(a), and if the transporter revises the manifest pursuant to 40 C.F.R. §263.21(b)(1), the transporter shall legibly note on the manifest the name and phone number of the person representing the generator from whom instructions have been obtained.

(3) A transporter whose manifested shipment results in a significant manifest discrepancy, as specified in R 299.9608, and a total or partial rejected shipment shall comply with 40 C.F.R. §263.21(b)(2). Before accepting for transportation the rejected portion of the original shipment, the transporter shall confirm that the generator has prepared a new manifest pursuant to part 3 of these rules.

(4) A transporter shall retain all records, logs, or documents required pursuant to this part for a period of 3 years. The retention period shall be extended during the course of any unresolved enforcement action regarding the regulated activity or as otherwise required by the department.

(5) The provisions of 40 C.F.R. part 263, subpart B, are adopted by reference in R 299.11003.

History: 1985 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 MR 5, Eff. Mar. 17, 2008.

R 299.9410 Hazardous waste discharges.

Rule 410. (1) If a fire, explosion, or other discharge of hazardous waste or hazardous waste constituents occurs during transportation that could threaten human health or the environment, or if a transporter has knowledge that a spill has reached surface water or groundwater, then the transporter shall take appropriate immediate action to protect human health and the environment, including notification of local authorities and the department's pollution emergency alerting system - telephone number 800-292-4706. Each notification shall include all of the following information:

- (a) Name of the reporter.
- (b) Name and address of carrier represented by the reporter.
- (c) Telephone number where the reporter can be contacted.
- (d) Date, time, and location of the incident.
- (e) The extent of injuries, if known.
- (f) Classification, name, and quantity of the hazardous waste involved and if a continuing danger to life exists at the scene of the fire explosion, or other discharge.

(2) If a discharge of hazardous waste or hazardous waste constituents occurs during transportation and if a state, local government, or federal official acting within the scope of his or her official responsibilities determines that immediate removal of the waste is necessary to protect human health or the environment, then the official may authorize the removal of the waste, without the preparation of a manifest, by transporters who do not have site identification numbers and a registration and permit under Act 138.

(3) A transporter who has discharged hazardous waste or hazardous waste constituents shall comply with all of the following requirements:

(a) Give notice, if required pursuant to 49 C.F.R. §171.15, to the national response center at 800-424-8802 or 202-426-2675.

(b) Report, in writing, as required by 49 C.F.R. §171.16, to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590.

(c) Provide notice, if the discharge was from a bulk shipment transported by water, as required by 33 C.F.R. §153.203 for oil and hazardous substances.

(d) Ensure cleanup of any hazardous waste or hazardous waste constituent discharge or take such action as may be required or approved by federal, state, or local officials so that the hazardous waste or hazardous waste constituent discharge no longer presents a hazard to human health or the environment.

(4) The provisions of 33 C.F.R. §153.203 and 49 C.F.R. §§171.15 and 171.16 are adopted by reference in R 299.11004.

History: 1985 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9411 Rescinded.

History: 1985 AACS; 1996 AACS; 2000 AACS.

R 299.9412 Rescinded.

History: 1985 AACS; 1988 AACS; 1998 AACS; 2000 AACS.

R 299.9413 Land disposal restrictions.

Rule 413. (1) Transporters of hazardous waste shall comply with the applicable requirements and restrictions of 40 C.F.R. part 268.

(2) The provisions of 40 C.F.R. part 268 are adopted by reference in R 299.11003. For purposes of this adoption, the word "director" shall replace the words "administrator" and "assistant administrator," except in the provisions of 40 C.F.R. §§268.5, 268.6, 268.40(b), 268.42(b), and 268.44(a) to (g) and (i) to (o).

History: 1994 AACS; 2000 AACS.

PART 5. CONSTRUCTION PERMITS AND OPERATING LICENSES

R 299.9501 Construction permits; applicability.

Rule 501. (1) Except as otherwise specified in R 299.9503, R 299.9524, and subrules (2), (3), and (4) of this rule, issuance of a construction permit by the director shall occur before any of the following begins:

(a) The physical construction of a new treatment, storage, or disposal facility.

(b) The expansion or enlargement beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility.

(c) The alteration of the method of treatment or disposal previously authorized at a treatment or disposal facility to a different method of treatment or disposal. A change in only the types and quantity of waste treated, stored, or disposed of, without an expansion, enlargement, or alteration of the facility, shall not require a construction permit. Such a change may require modification of the operating license as set forth in this part or, for facilities operating without a license in accordance with the provisions of R 299.9502(3), (4), or (5), submittal by the owner or operator of a revised part A application before such a change.

(2) Each method of treatment or disposal requires a separate construction permit. Either or both of the following may be authorized under a construction permit for treatment or disposal:

(a) Storage associated with such treatment or disposal.

(b) Wastewater treatment facilities treating wastewater generated from the treatment or disposal of a hazardous waste.

(3) If the director finds an imminent and substantial endangerment to human health or the environment, the director may issue a temporary emergency operating license to a nonlicensed facility to allow treatment, storage, or disposal of hazardous waste or to a licensed facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective operating license. These activities shall not be subject to the construction permit requirements of part 111 of the act and these rules. An emergency

operating license may be oral or written. If oral, it shall be followed in 5 days by a written emergency operating license. The emergency operating license may be terminated by the director at any time if he or she determines that termination is appropriate to protect human health and the environment. An emergency operating license shall comply with all of the following requirements:

(a) It shall not exceed 90 days in duration.

(b) It shall clearly specify the hazardous wastes to be received and the manner and location of their treatment, storage, or disposal.

(c) It shall be accompanied by a public notice published in accordance with R 299.9513, which includes all of the following information:

(i) Name and address of the office granting the emergency authorization.

(ii) Name and location of the licensed facility.

(iii) A brief description of the wastes involved.

(iv) A brief description of the action authorized and the reasons for authorizing it.

(v) Duration of the emergency operating license.

(d) It shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and part 6. An emergency operating license shall not be subject to the licensee fees specified by R 299.9510. The licensee shall pay for the cost of all public notices required by these rules for the emergency operating license.

(4) The director may issue a temporary operating license to any person who proposes to utilize, for research purposes, an innovative and experimental hazardous waste treatment technology or process for which standards have not been promulgated under these rules. Such licensed activities shall be exempt from the construction permit requirements of part 111 of the act and these rules, and, for the purpose of expediting the review and issuance of operating licenses under this subrule, the director may, consistent with the protection of human health and the environment, modify or waive the license application requirements of R 299.9508, except that the director shall not waive rules regarding financial responsibility, including insurance, or waive the public participation process specified in R 299.9511. A temporary operating license issued by the director under this subrule shall be in compliance with all of the following provisions:

(a) Provide for the construction of facilities, as necessary, and for the operation of the facilities for not more than 1 year, unless renewed, except that any operating license issued under this subrule shall not be renewed more than 3 times and each renewal shall be for a period of not more than 1 year.

(b) Provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the director determines necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment.

(c) Require compliance with the requirements of part 6 of these rules for any hazardous waste storage, and include such other requirements as the director deems necessary to protect human health and the environment, such as requirements regarding any of the following:

(i) Monitoring.

- (ii) Operation.
- (iii) Insurance or bonding.
- (iv) Financial responsibility.
- (v) Closure.
- (vi) Remedial action.

(d) Include such requirements as the director deems necessary regarding testing and the providing of information to the director with respect to the operation of the facility.

(5) A temporary operating license issued under subrule (3) or (4) of this rule may be terminated by the director at any time if he or she determines that termination is necessary to protect human health or the environment.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1991 AACS; 1996 AACS; 2000 AACS.

R 299.9502 Operating licenses; applicability and general application requirements.

Rule 502. (1) Part 111 of the act requires an operating license for the treatment, storage, and disposal of any hazardous waste, except for those facilities identified in subrules (3), (4), and (5) of this rule and except for trial burns or operations as provided in R 299.9628, as identified or listed in parts 2 and 8 of these rules. Requirements for remedial action plans, special forms of operating licenses, are specified in R 299.9524. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in part 1 of these rules. Owners or operators of hazardous waste management units shall have an operating license during the active life of the unit, including the closure period. Owners or operators of surface impoundments, landfills, land treatment units, and waste pile units that received wastes after July 26, 1982, or that certified closure after January 26, 1983, shall have an operating license for the postclosure period, unless they demonstrate closure by removal pursuant to subrules (8) and (9) of this rule or they obtain an enforceable document in place of an operating license for the postclosure period, as provided for in subrule (12) of this rule. If an operating license for the postclosure period is required, then the license shall incorporate the applicable groundwater monitoring, corrective action, and postclosure care requirements of part 6 of these rules. The denial of an operating license for the continued operation of a hazardous waste management facility or unit does not affect the requirement of obtaining a postclosure operating license. Owners or operators of certain facilities require operating licenses that are issued pursuant to part 111 of the act and, in addition, permits that are issued pursuant to other programs for certain aspects of the facility operation. Operating licenses that are issued pursuant to part 111 of the act are required for all of the following:

(a) Injection wells that dispose of hazardous waste, except as provided by R 299.9503(3)(a).

(b) The treatment, storage, or disposal of hazardous waste at facilities that require a permit pursuant to part 31 of the act, except as provided by R 299.9503(3)(b).

(c) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities that are associated with an ocean disposal operation.

(2) An owner or operator of a facility that is licensed pursuant to part 111 of the act on the effective date of these rules may continue to operate under the existing license if all of the following conditions are met:

(a) The facility is being operated in compliance with its existing operating license, the applicable statutory and regulatory requirements promulgated under part 111 of the act after license issuance, as required pursuant to R 299.9516, and all other applicable environmental statutes.

(b) The facility is either of the following:

(i) A facility which qualifies for interim status pursuant to 40 C.F.R. §270.70 and which is in compliance with all of the following provisions:

(A) Has filed a part A application pursuant to 40 C.F.R. §270.10(e).

(B) Has amended the part A application, as necessary, pursuant to 40 C.F.R. §270.10(g).

(C) Has not had interim status terminated pursuant to 40 C.F.R. §270.73.

(D) Has complied with the applicable provisions of 40 C.F.R. part 265 and §270.71 and the applicable provisions of parts 6 and 8 of these rules.

(E) Has not made changes to the hazardous waste management facility during interim status that amount to reconstruction of the facility. Reconstruction occurs when the capital investment in the changes to the facility is more than 50% of the capital cost of a comparable entirely new hazardous waste management facility. Changes pursuant to this subparagraph do not include changes made solely for the purpose of complying with the requirements of R 299.9615 for tanks and ancillary equipment. Changes pursuant to this subparagraph do not include changes made solely for the purposes of managing wastes generated from releases that originate within the facility boundary, pursuant to R 299.9503(4)(c).

(ii) A facility which is permitted pursuant to 40 C.F.R. part 270 and which is in compliance with the permit or license issued.

(c) The owner or operator submits an application for a new license to the director not less than 180 days before license expiration.

(d) The owner or operator complies with all applicable requirements of parts 6, 7, and 8 of these rules.

(3) An owner or operator of a storage facility which is in existence on March 30, 1983, and which is subject to the licensing requirements of part 111 of the act solely due to the 1982 amendments to part 111 of the act may continue to operate until such time as the director acts upon the facility's application for an operating license, if all of the following conditions are met:

(a) The facility is in compliance with subrule (2)(b) of this rule.

(b) The owner or operator submits a complete operating license application within 180 days after being requested to do so by the director.

(c) The owner or operator complies with the applicable requirements of parts 6, 7, and 8 of these rules and all applicable environmental statutes.

(4) The owner or operator of a treatment, storage, or disposal facility that is in existence on the effective date of amendments to part 111 of the act or these rules that render the facility subject to the licensing requirements of part 111 of the act may continue to operate until such time as the director acts upon the owner or operator's application for an operating license, if the conditions of subrule (3)(a), (b), and (c) of this rule are met.

(5) An owner or operator of a facility which is in existence on January 1, 1980, and which is subject to the licensing requirements of part 111 of the act, but which has not yet obtained an operating license pursuant to part 111 of the act, may continue to operate until such time as the director acts upon the facility's application for an operating license if the owner or operator meets the conditions of subrule (3)(a), (b), and (c) of this rule.

(6) Allowing continued operation pursuant to subrules (2) to (5) of this rule does not do any of the following:

(a) Reduce the owner or operator's responsibility to dispose of all hazardous waste in a manner that protects the environment and human health.

(b) Eliminate or reduce past, present, or future liability incurred during the operation.

(c) Restrict the ability of state or local governmental agencies to take action to enforce existing laws, statutes, rules, or regulations.

(7) A person who proposes to initiate the operation of any treatment, storage, or disposal facility shall submit, to the director, on forms provided by the director or his or her designee, an operating license application that sets forth the information required by R 299.9508.

(8) Owners or operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination pursuant to 40 C.F.R. part 265 standards shall obtain an operating license for the postclosure period, unless the owners or operators can provide an equivalency demonstration to the director that the closure met the standards for closure by removal or decontamination specified in 40 C.F.R. §§264.228, 264.280(e), or 264.258, respectively. The demonstration shall be made as follows:

(a) If the owner or operator has submitted an operating license application for the postclosure period, the owner or operator may request a determination, based on information contained in the application, that 40 C.F.R. part 264 closure-by-removal standards were met. If the director determines that 40 C.F.R. part 264 standards were met, then he or she shall notify the public of his or her proposed decision, allow for public comment, and reach a final determination according to the procedures in subrule (9) of this rule.

(b) If the owner or operator has not submitted an operating license for the postclosure period, then the owner or operator may petition the director for a determination that an operating license for the postclosure period is not required because the closure was in compliance with the applicable 40 C.F.R. part 264 closure standards. The petition shall include all data which demonstrates that closure by removal or decontamination standards were met or the petition shall demonstrate that the unit closed pursuant to state requirements that met or exceeded the applicable 40 C.F.R. part 264 closure by removal standard. The director shall approve or deny the petition according to the procedures outlined in subrule (9) of this rule.

(9) If a facility owner or operator seeks an equivalency demonstration pursuant to subrule (8) of this rule, the director shall do all of the following:

(a) Provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner or operator within 30 days from the date of the notice.

(b) In response to a request, hold a public hearing concerning the equivalence of the 40 C.F.R. part 265 closure to a 40 C.F.R. part 264 closure and give public notice of the hearing not less than 30 days before it occurs.

(c) Determine whether the 40 C.F.R. part 265 closure met the 40 C.F.R. part 264 closure by removal or decontamination requirements within 90 days of receipt of the petition.

(d) If the director finds that the closure did not meet the applicable standards of 40 C.F.R. part 264, then provide the owner or operator with a written statement of the reasons why the closure failed to meet 40 C.F.R. part 264 standards.

(10) If the director determines, pursuant to subrule (9) of this rule, that a closure was not in compliance with the applicable 40 C.F.R. part 264 standards, then the owner or operator may submit additional information in support of an equivalency demonstration within 30 days after receiving a written statement from the director. The director shall review any additional information submitted and make a final determination within 60 days. If the director determines that the facility did not close pursuant to 40 C.F.R. part 264 closure by removal standards, then the facility is subject to operating license requirements for the postclosure period.

(11) Owners or operators of waste military munitions treatment and disposal facilities are authorized to continue to accept waste munitions if all of the following conditions are met:

(a) The facility was in existence as a hazardous waste facility and already licensed to handle waste military munitions, on the effective date on which the waste munitions became subject to regulation under these rules.

(b) On or before the effective date on which the waste military munitions became subject to regulation under these rules, the licensee submits an operating license modification to remove or amend the license provisions which restrict the receipt of off-site waste munitions.

(c) The licensee submits a complete modification request within 180 days of the effective date on which the waste munitions became subject to regulation under these rules.

(12) At the discretion of the director, an owner or operator may obtain, in place of an operating license for the postclosure period, an enforceable document which satisfies the requirements of R 299.9508(3) and (4), R 299.9612, and R 299.9629. The director, in issuing enforceable documents under this subrule, shall assure a meaningful opportunity for public involvement which, at a minimum, includes public notice and opportunity for public comment when the department becomes involved in a remediation at the facility as a regulatory or enforcement matter, on the proposed preferred remedy and the assumptions upon which the remedy is based, in particular those related to land use and site characterizations, and at the time of a proposed decision that remedial action is complete at the facility. The public notice and public comment requirements of this subrule may be modified if the facility meets either of the following conditions:

(a) If the director determines that even a short delay in the implementation of a remedy would adversely affect human health or the environment, the director may delay compliance with the public notice and public comment requirements of this subrule and implement the remedy immediately. However, the director shall assure

involvement of the public at the earliest opportunity, and, in all cases, upon making the decision that additional remedial action is not needed at the facility.

(b) The director may allow a remediation initiated before October 22, 1998 to substitute for corrective action required under a postclosure license even if the public involvement requirements of this subrule have not been met so long as the director assures that notice and comment on the decision that no further remediation is necessary to protect human health and the environment takes place at the earliest reasonable opportunity after October 22, 1998.

(13) The provisions of 40 C.F.R. §§264.96, 264.117, 265.111, 265.114, 270.10(e) and (g), 270.70, 270.71, and 270.73 and part 265, except subparts E, H, and DD and 40 C.F.R. §§265.112(d)(1), 265.115, and 265.120, are adopted by reference in R 299.11003, with the exception that the word "director" shall replace the term "regional administrator."

History: 1985 AACS; 1988 AACS; 1991 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9503 Construction permits and operating licenses; exemptions.

Rule 503. (1) The following persons do not require a construction permit or operating license pursuant to the provisions of part 111 of the act:

(a) Persons who own or operate a facility that treats, stores, or disposes of hazardous waste in compliance with the provisions of parts 31, 55, and 115 of the act, if the only hazardous wastes the facility treats, stores, or disposes of are conditionally exempt small quantities that are exempted from regulation pursuant to the provisions of R 299.9205.

(b) Generators who accumulate hazardous waste on site for less than the time periods provided in R 299.9306.

(c) Farmers who dispose of waste pesticides from their own use in compliance with the provisions of R 299.9204(3)(b).

(d) Owners or operators of totally enclosed treatment facilities.

(e) Owners or operators of elementary neutralization units.

(f) Owners or operators of wastewater treatment units, if the following conditions, as applicable, are complied with:

(i) The units are subject to regulation pursuant to the provisions of section 402 or 307(b) of the federal clean water act.

(ii) The units are located on the site of a generator and do not treat hazardous waste from any other generator unless the waste is shipped entirely by pipeline or the off-site generator has the same owner as the facility at which the unit is located.

(iii) If an owner or operator is diluting D001 waste, other than D001 high TOC subcategory waste as defined in 40 C.F.R. §268.40, or D003 waste, to remove the hazardous characteristic before land disposal, the owner or operator complies with the requirements of 40 C.F.R. §§264.17(b) and 265.17(b), as applicable.

(g) Transporters storing manifested shipments of hazardous waste in containers at a transfer facility for a period of 10 days or less, if the transfer facility requirements of R 299.9404 are met.

(h) Persons adding absorbent material to hazardous waste in a container, and persons adding hazardous waste to absorbent material in a container, if all of the following conditions are met:

(i) The actions occur at the site of generation at the time hazardous waste is first placed in the container.

(ii) Liquids are not absorbed in materials that biodegrade or that release liquids when compressed.

(iii) The provisions of 40 C.F.R. §§264.17(b), 264.171, and 264.172 are complied with.

(i) Generators who have on-site treatment facilities if a generator complies with all of the following requirements:

(i) All treatment is conducted in either containers or tanks.

(ii) If the treatment occurs in containers, then all of the following requirements are complied with:

(A) The requirements of 40 C.F.R. part 265, subpart I, except 40 C.F.R. §265.173.

(B) The containers holding hazardous waste are always closed, except when it is necessary to add, remove, or treat the waste.

(C) The containers holding hazardous waste are not opened or handled in a manner that may rupture the containers or cause them to leak.

(D) The containment requirements of 40 C.F.R. §264.175.

(E) The generator documents the inspections required pursuant to the provisions of 40 C.F.R. §265.174.

(iii) If the treatment occurs in tanks, the requirements of 40 C.F.R. part 265, subpart J, except for the provisions of 40 C.F.R. §§265.197(c) and 265.200.

(iv) The requirements of 40 C.F.R. part 265, subpart C.

(v) The area where the waste is treated is protected, as appropriate for the type of waste being treated, from weather, fire, physical damage, and vandals.

(vi) Hazardous waste treatment is conducted so that hazardous waste or hazardous waste constituents cannot escape by gravity into the soil, directly or indirectly, into surface or groundwaters, or into drains or sewers and so that fugitive emissions are not in violation of part 55 of the act.

(vii) The closure standards of 40 C.F.R. §§265.111 and 265.114.

(viii) All treatment is completed within 90 days from the date that accumulation of the waste began if the generator is a large quantity generator or within 180 days from the date that the accumulation of the waste began if the generator is a small quantity generator.

(ix) Documentation is maintained on site which specifies the date that accumulation of the waste began, the date that treatment of the waste began, and the date that treatment of the waste was completed.

(x) The requirements of R 299.9602, R 299.9603(1)(b) to (f) and (4), R 299.9604, R 299.9627, and R 299.9633.

(j) Universal waste handlers and universal waste transporters when handling the wastes identified in R 299.9228(1). Universal waste handlers and universal waste transporters are subject to the provisions of R 299.9228 when handling the universal wastes identified in R 299.9228(1).

(k) Owners or operators who use a pipeline for the sole purpose of transferring wastes to and from treatment or storage tanks at the facility and bulk railcars at an off-site transfer facility, if all of the following requirements are met:

(i) The pipeline is owned and operated by the owner or operator.

(ii) The pipeline meets the requirements for ancillary equipment pursuant to the provisions of 40 C.F.R. part 264, subpart J.

(iii) Wastes are not stored in the pipeline.

(iv) The owner or operator establishes as part of their waste analysis plan procedures for receipt of the wastes by the facility to and from the transport vehicle.

(v) The owner or operator uses the pipeline solely as a method of transferring wastes and not as an extension of the facility boundary beyond the area specified in their current operating license, construction permit, or authorization.

(1) Owners or operators of facilities which store military munitions that have been classified as a waste in accordance with part 2 of these rules unless otherwise specified in R 299.9817.

(2) A person who is engaged in treatment or containment activities during immediate response to a discharge of a hazardous waste, an imminent and substantial threat of a discharge of hazardous waste, a discharge of a material which, when discharged, becomes a hazardous waste, or an immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist shall not be subject to the construction permit and operating license requirements of part 111 of the act and these rules. Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part and part 6 of these rules, except as provided in subrule (4) of this rule. In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall retain records for 3 years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(3) The following shall be deemed to have an operating license and shall not be subject to the construction permit requirements of part 111 of the act and these rules, if the listed conditions are met:

(a) The owner or operator of an injection well disposing of hazardous waste, if the owner or operator meets all of the following requirements:

(i) Has a permit for underground injection that is issued pursuant to the provisions of 40 C.F.R. parts 124, 144, 145, 146, and 147, subpart X.

(ii) Complies with the conditions of the permit and the requirements of the provisions of 40 C.F.R. §144.14.

(iii) Has a permit for underground injection that is issued pursuant to the provisions of 40 C.F.R. parts 124, 144, 145, 146, and 147, subpart X, and that is issued after November 8, 1984, and complies with both of the following:

(A) The provisions of R 299.9629, Corrective action.

(B) Where the underground injection well is the only unit at a facility that requires a permit, complies with the provisions of 40 C.F.R. §270.14(d).

(b) The owner or operator of a publicly owned treatment works that accepts hazardous waste for treatment if the waste is in compliance with all federal, state, and local pretreatment requirements that would be applicable to the waste if it were being discharged into the publicly owned treatment works (POTW) through a sewer, pipe, or similar conveyance, if the owner or operator has a national pollutant discharge elimination system (NPDES) permit and the owner or operator complies with the conditions of the permit, and if the owner or operator complies with all of the following requirements:

(i) The provisions of 40 C.F.R. §264.11, identification number.

(ii) The provisions of R 299.9608, Use of manifest system.

(iii) The provisions of R 299.9609, Operating record; availability, retention and disposition of records.

(iv) The provisions of R 299.9610, Reporting.

(v) For NPDES permits issued after November 8, 1984, the provisions of R 299.9629, Corrective action.

(4) The director shall exempt persons who conduct the following activities from the construction permit and operating license requirements of part 111 of the act and these rules, but only if the exemption does not constitute a less stringent permitting requirement than is required pursuant to the provisions of RCRA:

(a) The treatment of hazardous waste during the closure of a treatment, storage, or disposal unit, if both of the following conditions apply:

(i) The treatment occurs at the site of generation.

(ii) The treatment is authorized in a closure plan approved by the director or his or her designee.

(b) Closure of an existing surface impoundment for hazardous waste that is closed as a landfill pursuant to the provisions of R 299.9616(3), if the closure is authorized in a closure plan approved by the director or his or her designee and an operating license is obtained for the postclosure period.

(c) The treatment, storage, or disposal of hazardous waste at the individual site of generation if conducted solely in response to, or as corrective action under, and in full compliance with, a plan developed or approved by the director, or his or her designee, pursuant to the provisions of part 31, 111, 201, or 213 of the act, or an administrative or judicial consent order to which the director is a party and if the treatment, storage, or disposal is conducted in accordance with the technical standards of part 6 of these rules.

(d) Treatment, storage, or disposal of hazardous waste at the individual site of generation, if conducted solely in response to, or as a corrective action under, and in full compliance with CERCLA.

(5) The provisions of 40 C.F.R. parts 124, 144, 145, 146, 147, and 265, subparts I and J, except §§265.197(c) and 265.200, and §§264.11, 264.17(b), 264.171,

264.172, 264.175, 265.111, 265.114, and 268.7(a)(4) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2008 AACS.

R 299.9504 Construction permit application; content.

Rule 504. (1) In addition to the information that may be required pursuant to subrule (18) of this rule, all applications for a construction permit shall include all of the following items:

(a) A construction permit application fee or deposit as calculated pursuant to R 299.9507.

(b) General information that is required pursuant to 40 C.F.R. §270.13.

(c) General information that is required pursuant to 40 C.F.R. §270.14(b) and (d).

(d) A hydrogeological report that contains the information required pursuant to R 299.9506.

(e) An environmental assessment, including a failure mode assessment that provides an analysis of the potential major methods by which safe handling of hazardous wastes may fail at a treatment, storage, or disposal facility. The owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill shall include, in the environmental assessment, information that is reasonably ascertainable by the owner or operator on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, the information shall address all of the following subjects:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit.

(ii) The potential pathways of human exposure to hazardous waste or constituents resulting from the releases described in paragraph (i) of this subdivision.

(iii) The potential magnitude and nature of the human exposure resulting from the releases described in paragraph (i) of this subdivision.

(f) An environmental monitoring program that is in compliance with R 299.9611.

(g) Engineering plans of all process equipment and containment structures at the facility. The plans shall be prepared and sealed by a registered professional engineer and shall include all of the following information:

(i) Plan views, elevations, sections, and supplementary views that, together with general layout drawings, provide working information for the review of the facility.

(ii) Specifications on all construction materials and installation methods.

(iii) The basis of design for all process equipment and containment structures.

(iv) A flow diagram of the entire treatment, storage, or disposal process.

(v) The design capacity of each process.

(h) A written summary of the comments received at the preapplication meeting required by R 299.9511(1) and the applicant's response to the comments, including any revisions to the application.

(2) Applicants proposing to store containers of hazardous waste shall submit the information required pursuant to 40 C.F.R. §270.15(a) to (e) in a construction permit application.

(3) Applicants proposing to store or treat hazardous waste in tanks shall submit the information required pursuant to 40 C.F.R. §270.16(a) to (k) in a construction permit application.

(4) Applicants proposing to incinerate or thermally treat hazardous waste in a hazardous waste incinerator that becomes subject to the permitting or licensing requirements of these rules after October 12, 2005, and applicants of existing hazardous waste incinerators shall submit either of the following in a construction permit application. If the owner or operator demonstrates compliance with the air emission standards and limitations in 40 C.F.R. part 63, subpart EEE, by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(b) which documents compliance with all applicable requirements of 40 C.F.R. part 63, subpart EEE, then the requirements of this subrule do not apply, except those provisions the director determines are necessary to ensure compliance with 40 C.F.R. §§264.345(a) and (c) if the owner or operator elects to comply with 40 C.F.R. §270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. The director may apply this subrule, on a case-by-case basis, for collecting information pursuant to subrules (18) and (20) of this rule and R 299.9521(3)(b) and (c):

(a) A trial burn plan containing the information listed in 40 C.F.R. §270.62(a) to (d) and a statement that suggests the conditions necessary to operate in compliance with the performance standards of 40 C.F.R. §264.343 during the trial burn. The statement shall include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters identified in 40 C.F.R. §264.345.

(b) In place of a trial burn plan, the information specified in 40 C.F.R. §270.19(c). The director shall approve an application without a trial burn plan if he or she determines both of the following:

(i) The wastes are sufficiently similar.

(ii) The incinerator units are sufficiently similar and the data from other trial burns are adequate to specify operating conditions that will ensure that the performance standards of 40 C.F.R. §264.343 will be met by the incinerator.

(5) Applicants proposing to treat hazardous waste shall submit all of the following information in a construction permit application:

(a) A demonstration of how the method and process proposed for the treatment of each hazardous waste will do any of the following:

(i) Change the physical, chemical, or biological character or composition of the waste.

(ii) Neutralize the waste.

(iii) Recover energy or material resources from the waste.

(iv) Render the waste nonhazardous, safer for handling or transport, amenable to recovery, amenable to storage, or reduced in volume.

(v) Chemically bind or render the toxic constituents nonhazardous rather than only diluted.

(b) The proper treatment technique, the proper feed rates of treatment chemicals or reagents, and the proper operating conditions, such as temperature, pressure, and flow rate, for the types of hazardous wastes proposed for treatment, and the accuracy of the devices intended to measure these parameters.

(c) If the hazardous waste or treatment chemicals or reagents will have any detrimental effect on the materials used for construction, such as causing corrosion, dissolution, saltings, or sealings. If detrimental effects are possible, then the method of controlling them shall be specified.

(d) If the hazardous waste contains any constituents or contaminants that may interfere with the intended treatment process or decrease the effectiveness of the treatment and, if so, how the interferences will be controlled.

(e) If the hazardous waste contains constituents or contaminants that may cause the release of toxic gases or fumes during the intended treatment and, if so, how they will be controlled.

(f) If the hazardous waste contains constituents or contaminants that may form toxic constituents with the treatment chemicals or reagents during the intended treatment and, if so, how they will be controlled.

(g) Trial tests, including bench scale, pilot plant scale, or other appropriate tests, on each hazardous waste that is new or significantly different from hazardous waste previously treated to verify the information required in subdivision (b) of this subrule.

(6) Applicants proposing to treat or store hazardous wastes in surface impoundments shall submit the following information in a construction permit application:

(a) The information required for surface impoundments pursuant to 40 C.F.R. §270.17(a) to (j).

(b) Information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(7) Applicants proposing to treat or store hazardous waste in waste piles shall submit the following information in a construction permit application:

(a) The information required for waste piles pursuant to 40 C.F.R. §270.18.

(b) For new waste piles, information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(8) Applicants proposing to landfill hazardous waste shall submit all of the following information in a construction permit application:

(a) The information required for landfills pursuant to 40 C.F.R. §270.21.

(b) Information on the proposed liner, leachate collection, and leak detection, collection, and removal systems, as specified in R 299.9505.

(c) Detailed engineering plans and an engineering report describing the final cover that will be applied to the landfill or each landfill cell pursuant to R 299.9619.

(9) Applicants proposing to dispose of hazardous wastes by land treatment shall submit the information required pursuant to 40 C.F.R. §270.20 in a construction permit application.

(10) Applicants proposing facilities that treat, store, or dispose of hazardous waste in miscellaneous units shall submit the information required pursuant to 40 C.F.R. §270.23 in a construction permit application.

(11) Applicants proposing facilities that store or dispose of hazardous waste in an underground mine or cave shall submit all of the following information in a construction permit application:

(a) A geologic report that contains the following information:

(i) For the receiving formation and other formations that are within 30 feet above and below the receiving formation, an applicant shall provide all of the following information:

- (A) The depth from the surface.
- (B) Thickness.
- (C) Permeability.
- (D) Solubility.
- (E) Reactivity.
- (F) Compatibility.
- (G) Composition.

This information shall be obtained by performing not less than 5 borings for the first 5 acres of the entire mine or cave and 3 borings for each additional 5 acres. Each boring site shall consist of a ceiling boring and a floor boring.

(ii) For the formations that are overlying the receiving formation for a lateral extent of not less than 5 miles from the facility boundary, an applicant shall provide all of the following information:

- (A) The depth from the surface.
- (B) Thickness.
- (C) Composition.

(D) The identification of water, oil, or gas-bearing formations. This information shall be obtained from existing geological information and reports.

(b) An assessment of the potential for water intrusion into the mine or cave. This assessment shall be used in the evaluation pursuant to R 299.9628(3)(a).

(c) Information on the means of transporting waste from any surface operation to the final disposal or storage area in the receiving formation and information on the means of preventing the release of hazardous constituents during transportation.

(d) An assessment of the structural stability of the mine or cave.

(e) Information on the proposed means of controlling the use, access, and penetration of the mine or cave.

(f) A demonstration that a sufficient buffer zone or other control exists to ensure that off-site activities will not adversely impact the integrity of the mine or cave.

(g) A proposed means of correlating waste placement locations to surface locations and a waste placement map.

(h) A proposed means of managing water in the mine or cave so as to maintain the integrity of the mine or cave and protect human health and the environment throughout the facility's active life and after closure of the facility.

(12) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have process vents to which R 299.9630 applies shall submit the

information required pursuant to 40 C.F.R. §270.24 in a construction permit application.

(13) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have equipment to which R 299.9631 applies shall submit the information required pursuant to 40 C.F.R. §270.25 in a construction permit application.

(14) Applicants proposing treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads shall submit the information required pursuant to 40 C.F.R. §270.26 in a construction permit application.

(15) Applicants proposing to burn hazardous waste in a boiler or industrial furnace shall submit the information required pursuant to 40 C.F.R. §270.22.

(16) Applicants proposing hazardous waste treatment, storage, or disposal facilities that have tanks, surface impoundments, or containers to which R 299.9634 applies shall submit the information required pursuant to 40 C.F.R. §270.27 in a construction permit application.

(17) Construction permit applications shall be signed and certified pursuant to 40 C.F.R. §270.11. In addition, the application shall be signed by the titleholder of the land upon which the facility is proposed to be located.

(18) The director may require a licensee or applicant to submit additional information to establish license conditions pursuant to R 299.9521.

(19) A licensee or applicant may demonstrate to the director, or his or her designee, that less information than that specified in this rule is necessary to determine conformance with the requirements of part 6 of these rules and establish permit or license conditions pursuant to this part. If the licensee or applicant demonstrates that less information is required, the director, or his or her designee, shall waive the information requirement, except that the director, or his or her designee, shall not require less information than is required by RCRA.

(20) If the director concludes, based on 1 or more of the factors listed in 40 C.F.R. §270.10(l)(1), that compliance with the standards of 40 C.F.R. part 63, subpart EEE alone may not be protective of human health or the environment, the director shall require additional information or assessments to determine if additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health or the environment resulting from both direct and indirect exposure pathways. The director may also require a licensee or applicant to provide the information necessary to determine if such an assessment should be required.

(21) The provisions of 40 C.F.R. §§264.343, 264.345, 266.102(e), 266.104 to 266.107, 270.10(l)(1), 270.11, 270.13, 270.14(b) and (d), 270.15(a) to (e), 270.16(a) to (k), 270.17(a) to (j), 270.18, 270.19(c), 270.20, 270.21, 270.22, 270.23, 270.24, 270.25, 270.26, 270.27, 270.62(a) to (d), 270.66, and 270.235(a)(1)(i) are adopted by reference in R 299.11003, with the exception that the term "waste management unit" shall replace the term "solid waste management unit."

History: 1985 AACS; 1988 AACS; 1991 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9505 Construction permit application; liner systems for landfills, surface impoundments, and waste piles.

Rule 505. (1) Applicants proposing a landfill, surface impoundment, or waste pile shall submit the following information in the engineering report for the liner, leachate collection system, and leak detection, collection, and removal system:

(a) Information concerning the vertical and horizontal isolation distance from groundwater and any dewatering system necessary to meet the isolation requirements of R 299.9603(5). All of the following information shall be submitted for dewatering systems:

(i) Design calculations for drain pipe diameter and spacing.

(ii) Design features that allow cleaning of drainage pipes to prevent clogging within the system.

(iii) Evaluation of corrosive resistance and structural suitability of underdrain pipe under both static and dynamic loadings.

(b) Information concerning soils to be used for any compacted soil liner, including, at a minimum, all of the following:

(i) Source of the soils.

(ii) Uniformity of the soil source.

(iii) Classification of the soil under the unified soil classification system, according to ASTM standard D2487-69, which is adopted by reference in R 299.11001.

(iv) Particle size distribution according to both sieve and hydrometer testing.

(v) The moisture-density relationship of the soil according to the modified proctor test, ASTM standard D1557-91, or the standard proctor test ASTM standard D698-91, which are adopted by reference in R 299.11001.

(vi) The compaction necessary to achieve a permeability with water not greater than 1.0×10^{-7} cm/sec., and the permeability of the soil under a compaction of 90% of the maximum dry density, as determined by the modified proctor test, ASTM standard D1557-91, OR 95% of the maximum dry density, as determined by the standard proctor test, ASTM standard D698-91.

(vii) The permeability of the soil under the conditions of paragraph (vi) of this subdivision utilizing liquid similar to the leachate that would be expected from the proposed facility.

(viii) Procedures for complying with the quality control requirements of R 299.9621.

(c) Information on any synthetic liner to be used, including all of the following:

(i) Methods of storage, handling, and installation, including any written instructions from the manufacturer and procedures for complying with the quality control requirements of R 299.9621.

(ii) Physical properties of the liner material, such as the following:

(A) Thickness.

(B) Resiliency.

(C) Elongation.

(D) Tensile strength.

(E) Breaking strength.

(F) Tear strength.

(G) Dimensional stability.

- (H) Bonded seam strength.
- (I) Hydrostatic resistance.
- (J) Ply adhesion.
- (K) Volatile loss.
- (L) Water extraction.
- (M) Water absorption.
- (iii) Ability of liner material to maintain physical properties under all of the following prolonged and varying conditions expected at the proposed facility:
 - (A) Temperature.
 - (B) pH.
 - (C) Ultraviolet radiation.
 - (D) Biological attack.
 - (E) Leachate composition.
- (d) Information on the characteristics of soils underlying any compacted or synthetic liner. This information shall include all of the following:
 - (i) Settlement analysis which estimates total and differential settlement, including immediate settlement, primary consolidation, and secondary consolidation based on maximum loading.
 - (ii) Strength analysis which determines the bearing capacity and stability of the underlying soils.
 - (iii) Slope stability analysis, including all of the following information:
 - (A) Side slope stability under excavation.
 - (B) Liner system stability under construction.
 - (C) Waste mass stability during filling sequence.
 - (D) Final cover stability.
 - (E) Long-term postclosure stability.
 - (iv) Performance under varying groundwater conditions.
 - (v) Potential for bottom heave or blowout.
- (e) Information on the design of the leachate collection system and the leak detection, collection, and removal system. Such information shall include, at a minimum, all of the following:
 - (i) Calculations to determine the anticipated volume of leachate to be generated.
 - (ii) The granular material to be used to allow adequate flow and removal of liquid and to provide an aggregate envelope for collection pipe.
 - (iii) The design of collection pipe, including all of the following information:
 - (A) Diameter.
 - (B) Perforations.
 - (C) Slope.
 - (D) Spacing.
 - (E) Chemical resistance.
 - (F) Structural integrity under static and dynamic loadings.
 - (iv) Procedures to prevent clogging.
 - (v) The design of the leachate removal system, including all of the following information:
 - (A) Leachate inflow.
 - (B) Sump dimensions.

- (C) Pump on and off levels.
- (D) Effective storage volume of sump.
- (E) Riser pipe.
- (F) Total discharge head of pump.
- (G) Pump selection.
- (H) Pump cycle time.
- (vi) Calculations which demonstrate that the leachate head will be 12 inches (30 centimeters) or less above the liner at any point, except the sump.
- (f) Information on stormwater management. such information shall include, at a minimum, all of the following:
 - (i) Run-on volumes, systems, and management plans.
 - (ii) Runoff volumes, systems, and management plans.
 - (iii) Stormwater discharge system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.
- (2) Applicants proposing a landfill, surface impoundment, or waste pile shall submit a construction quality assurance plan which includes a description of all of the following:
 - (a) The responsibility and authority of all organizations and key personnel involved in permitting, designing, and constructing the hazardous waste land disposal facility.
 - (b) The qualifications of inspection personnel to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.
 - (c) The observations, tests, and sampling that will be used to monitor the installation of the hazardous waste disposal facility in accordance with R 299.9621, including a description of all of the following:
 - (i) Sampling activities.
 - (ii) Sample size.
 - (iii) Frequency of testing.
 - (iv) Acceptance and rejection criteria.
 - (v) Plans for implementing corrective measures.
 - (d) A description of how construction quality assurance data will be recorded.

History: 1985 AACCS; 1988 AACCS; 2000 AACCS.

R 299.9506 Hydrogeological reports; content.

Rule 506. (1) A hydrogeological report shall include all of the following information:

- (a) A summary of the groundwater monitoring data obtained during the interim status period pursuant to the provisions of 40 C.F.R. part 265, subpart F, where applicable, and a summary of any other groundwater monitoring data collected pursuant to state or federal law.
- (b) Identification of the uppermost aquifer and aquifers hydraulically interconnected to the uppermost aquifer beneath the facility property, including groundwater flow direction and rate, and the basis for the identification.
- (c) Identification of any aquifer utilized by public and private wells within 2,000 feet of the proposed site.

- (d) Identification of all other aquifers evidenced by available well or boring logs.
- (e) The delineation of all of the following on the topographic map required pursuant to the provisions of 40 C.F.R. §270.14(b)(19):
 - (i) The waste management area and any other treatment or storage areas.
 - (ii) The property boundary.
 - (iii) The proposed point of compliance, as defined pursuant to the provisions of 40 C.F.R. §264.95.
 - (iv) The proposed location of groundwater monitoring wells as required pursuant to the provisions of 40 C.F.R. §264.97.
 - (v) To the extent possible, the information required pursuant to the provisions of subdivision (b) of this subrule.
 - (f) On the topographic map required pursuant to the provisions of 40 C.F.R. §270.13(1), identification of all domestic, municipal, industrial, oil, and gas wells and soil borings within 1 mile of the site in all directions for which copies of logs are available.
 - (g) A description of any plume of contamination that has entered the groundwater from a hazardous waste management unit or other regulated activity at the site at the time that the application was submitted that does both of the following:
 - (i) Delineates the extent of the plume on the topographic map required pursuant to the provisions of 40 C.F.R. §270.14(b)(19).
 - (ii) For landfills, surface impoundments, land treatment units, and waste piles, identifies the concentration of each constituent listed in the provisions of 40 C.F.R. part 261, appendix VIII, throughout the plume or identifies the maximum concentrations of each constituent in the plume.
- (2) A hydrogeological report shall include detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of R 299.9612 or a justification for a waiver pursuant to the provisions of subrule (7) of this rule. The engineering report shall include all of the following information for this purpose:
 - (a) Soil boring logs and the results of soil sampling from the borings that are sufficient to adequately define soil and groundwater conditions at the site. All of the following procedures shall be utilized in collecting the data:
 - (i) Not less than 5 soil borings shall be made for the first 5 acres of the site, and 3 borings shall be made for each additional 5 acres or portion thereof. A lesser number of borings may be made for nonactive portions of the site, such as buffer zones, and by supplementing boring information with geophysical testing, such as resistivity surveys. Soil borings shall be located in a grid pattern so that there is a minimum of 1 boring in each major geomorphic feature, such as ridges, lowlands, and drainage swales, and all borings shall extend not less than 30 feet below proposed grade or the anticipated bottom elevation of any installed or constructed liner.
 - (ii) At each boring, soil samples shall be collected from each soil layer or change in lithology. Two of the 5 soil borings that are required by the provisions of paragraph (i) of this subdivision shall be evaluated and logged using continuous sampling methods, such as continuous tube sampling, coring, or continuously driven split spoons. For sites that are larger than 5 acres, 1 of each of the 3 additional soil borings that are required by the provisions of paragraph (i) of this subdivision shall be evaluated and logged using

continuous sampling methods. Samples that are collected from each soil layer or change in lithology shall be tested for all of the following:

(A) Particle size distribution by both sieve and hydrometer.

(B) Atterburg limits according to ASTM standard D423-66 and ASTM standard D424-59, which are adopted by reference in R 299.11001.

(C) Classification pursuant to the unified soil classification system, according to ASTM standard D2487-69, which is adopted by reference in R 299.11001.

(iii) Each soil layer at a site shall be evaluated for both of the following:

(A) Moisture content, according to ASTM standard D422-63, which is adopted by reference in R 299.11001.

(B) Permeability with water by the triaxial cell method as described in the EPA document entitled "Soil Properties, Classification, and Hydraulic Conductivity Testing," which is adopted by reference in R 299.11008; constant head method, according to ASTM standard D2434-68, which is adopted by reference in R 299.11001; approved in-situ field method; or other method approved by the director. All soil samples collected for determination of permeability shall be collected by standard undisturbed soil sampling techniques, such as a 3-inch diameter Shelby tube or large diameter split spoon.

(iv) Boring logs shall include all of the following:

(A) Soil and rock descriptions.

(B) Method of sampling.

(C) Sample depth.

(D) Date of boring.

(E) Water level measurements.

(F) Soil test data.

(G) Boring location.

(H) Standard penetration number by ASTM standard D1586-67, which is adopted by reference in R 299.11001.

(v) All soil borings that are not converted to observation wells pursuant to the provisions of subdivision (b) of this subrule shall be carefully backfilled, plugged, and recorded in accordance with the provisions of the well installation and well decommissioning procedures in ASTM standards D092-90 and D5299-92, or a plan approved by the director.

(vi) All elevations shall be corrected to United States geological survey (USGS) datum. (b) Static water level measurements from observation wells and, where appropriate, well clusters which are located at the sites of soil borings and which are constructed in accordance with the provisions of R 299.9612. Measurements shall be accurate to the nearest 0.01 foot, corrected to United States geological survey (USGS) datum, and shall be taken from not less than 3 observation wells and 1 well cluster for the first 5 acres of the facility or portion thereof and 1 observation well for each additional 10 acres or portion thereof. Landfills, surface impoundments, waste piles, and land treatment facilities shall have not less than 3 well clusters established as part of the monitor well system and at least 1 cluster well for each 20 acres of the proposed site. All observation wells shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-90 and D5299-92, or a plan approved by the director.

(c) A water level contour map based on stabilized water level readings and using values contoured on an interval of not more than 1 foot.

(d) If more than 2 well clusters have been constructed, then groundwater flow net diagrams illustrating horizontal and vertical flow directions of groundwater.

(e) The location and depth of all observation wells and evidence that these observation wells are located effectively to detect hazardous constituents from the facility, based on all of the following:

(i) Groundwater flow direction.

(ii) Velocity.

(iii) Horizontal and vertical gradients.

(iv) Thickness of the saturated zone.

(v) The dispersion properties of hazardous waste constituents, such as the following:

(A) Specific gravity.

(B) Solubility.

(C) Chemical reactivity within the formation.

(D) Characteristics of decomposition products.

(f) At each soil boring that is to be completed as an observation well during or following the hydrogeologic investigation, the lithology of that soil boring shall be continuously sampled, logged, and classified pursuant to the unified soil classification system in accordance with ASTM standard D2487-69, which is adopted by reference in R 299.11001, from an elevation of 10 feet above the expected screened interval to the base of the borehole. Continuous sampling tubes, coring devices, or continuously collected split spoon samples may be used to satisfy this requirement. The director may allow the substitution of alternate information for this requirement or waive this requirement based on available information, site-specific hydrogeologic conditions, and available technology.

(3) If the presence of hazardous constituents has not been detected in the groundwater at the time of permit or license application, then the owner or operator shall submit sufficient information, supporting data, and analysis to establish a detection monitoring program that is in compliance with the requirements of R 299.9612 and the provisions of 40 C.F.R. §264.98. The submission shall include all of the following:

(a) A proposed list of primary and secondary monitoring parameters and proposed monitoring frequencies for these parameters.

(b) A proposed groundwater monitoring system.

(c) Background values for each proposed primary and secondary monitoring parameter or procedures to calculate such values.

(d) A description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.

(e) Procedures for preventing cross-contamination in wells during activities such as well installation, purging, or sampling.

(f) Evidence that sampling procedures and well construction materials are compatible with proposed monitoring parameters.

(4) If the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of license application, the owner or operator shall submit sufficient information, supporting data, and analysis to establish a compliance

monitoring program that is in compliance with the requirements of R 299.9612 and the provisions of 40 C.F.R §264.99. The submission shall include all of the following:

- (a) A description of the wastes previously handled at the facility.
 - (b) A characterization of the contaminated groundwater, including concentrations of hazardous constituents.
 - (c) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with the provisions of R 299.9612 and 40 C.F.R.§§264.97 and 264.99.
 - (d) Proposed concentration limits for each hazardous constituent which do not exceed the background level of that constituent in the groundwater or which do not exceed a concentration limit that is not less stringent than allowed pursuant to the provisions of RCRA and that has been established pursuant to the provisions of part 201 of the act.
 - (e) Detailed plans and an engineering report describing the proposed groundwater monitoring system in accordance with the requirements of 40 C.F.R. §264.97.
 - (f) A description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.
- (5) If hazardous constituents have been measured in the groundwater that exceed the concentration limits established pursuant to the provisions of 40 C.F.R. §264.94(a)(2), Table I, or if groundwater monitoring conducted at the time of the license application indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, then the owner or operator shall submit sufficient information, supporting data, and analyses to establish a corrective action program that is in compliance with the requirements of R 299.9612 and the provisions of R 299.9629. To demonstrate compliance with the provisions of R 299.9612 and R 299.9629, the owner or operator shall address, at a minimum, all of the following items:
- (a) A characterization of the contaminated groundwater, including concentrations of hazardous constituents.
 - (b) The concentration limit for each hazardous constituent found in the groundwater, which shall not exceed the background level of that constituent found in the groundwater at the time that limit is specified in the operating license.
 - (c) Detailed plans and an engineering report describing the corrective action to be taken.
 - (d) A description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.
- (6) For landfills, surface impoundments, waste piles, and land treatment units, a hydrogeological report shall include all of the following additional information that is necessary to determine site suitability and facility design:
- (a) For each boring made pursuant to the provisions of subrule (2) of this rule, all of the following tests at intervals of not more than 5 feet or change in geologic formation:
 - (i) Particle size distribution by both sieve and hydrometer.
 - (ii) Atterburg limits according to ASTM standard D423-66 and ASTM standard D424-5, which are adopted by reference in R 299.11001.
 - (iii) Classification pursuant to the unified soil classification system according to ASTM standard D2487-69, which is adopted by reference in R 299.11001.

(b) For each boring mad pursuant to the provisions of subrule (2) of this rule, the following tests at intervals of not more than 10 feet:

(i) Permeability, by any of the following methods:

(A) The triaxial cell method, as described in the EPA document entitled "Soil Properties, Classification and Hydraulic Conductivity Testing," which is adopted by reference in R 299.11008.

(B) The constant head method, according to ASTM standard D2434-68, which is adopted by reference in R 299.11001.

(C) An in-situ field method approved by the director.

(D) Other methods approved by the director.

(ii) Moisture content, according to ASTM standard D422-63, which is adopted by reference in R 299.11001.

(c) Soil boring logs and the results of soil sampling from such borings that are sufficient to adequately define bedrock conditions at the site.

(d) Additional information for determining the geotechnical characteristics of each soil layer at the site, such as any of the following:

(i) Shear strength.

(ii) In-situ density.

(iii) Specific gravity.

(iv) Stress deformation.

(v) Shrinkage limit.

(vi) Clay mineralogy.

(vii) Information on the presence of cracks, fissures, and other voids that may increase the effective permeability of the soil.

(e) A series of geologic cross sections or fence diagrams referenced to a site map and illustrating all of the following:

(i) Existing topography.

(ii) Soil borings.

(iii) Soil classification.

(iv) Stratigraphy and other properties.

(v) Bedrock.

(vi) Wells.

(vii) Stabilized water level readings and proposed site grades.

(f) Water budget calculations under present site conditions, future active operations, and, for disposal facilities, the postclosure period. The calculations shall consider all of the following factors:

(i) Precipitation.

(ii) Evaporation.

(iii) Runoff.

(iv) Infiltration.

(v) Evapotranspiration.

(vi) Groundwater flow velocities and volume.

(vii) Soil moisture-holding capacity.

(viii) For disposal facilities, the capacity of proposed waste types to hold moisture.

(7) The director may waive or substitute alternate information for the information specified in subrule (2) or (6) of this rule based on site-specific considerations and available technology.

(8) The provisions of 40 C.F.R. §§264.94(a)(2), table 1, 264.95, 264.97, 264.98, 270.13(l), and 270.14(b)(19) and part 265, subpart F, are adopted by reference in R 299.11003.

History: 1985 AACS; 1994 AACS; 1998 AACS; 2000 AACS.

R 299.9507 Construction permit application fees.

Rule 507. (1) The applicant shall calculate the construction permit application fee by totalling the appropriate fees in items (1), (2), (3), and (4) of table 501 of R 299.9523. Each construction permit application requires a separate application fee.

(2) A check made payable to the state of Michigan for the calculated fee shall be attached to the construction permit application.

(3) The applicant may request, upon application submittal, that the application fee be based on the cost of review, which consists of actual work hours required for construction permit review plus the cost of any public notices published or broadcast. This request shall be made, in writing, on the construction permit application. The applicant shall be assessed the actual review cost fee. A construction permit shall not be issued by the director until all fees required by this rule are paid in full. If the actual review cost fee is less than the calculated fee, the difference between the actual review cost fee and the calculated fee submitted with the application shall be refunded within 60 days after the construction permit is approved or denied.

(4) An applicant who has requested that the application fee be based on actual review costs forfeits the further opportunity to use calculated fees according to table 501 of R 299.9523.

(5) If a construction permit application is not resubmitted after being found to be administratively incomplete, the application fee, minus the cost of all public notices published or broadcast, shall be refunded.

(6) If a construction permit application is denied, no portion of the application fee shall be refunded.

(7) An applicant who makes a reapplication for a revised proposal within 6 months of denial shall be assessed only the actual costs to review the revised proposal. These actual costs shall not exceed the calculated fee from table 501 of R 299.9523.

(8) An applicant who withdraws a construction permit application within 14 days of receipt by the director shall have 70% of the original application fee, minus the cost of all public notices published or broadcast, refunded or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.

(9) An applicant who withdraws a construction permit application within 30 days of receipt by the director shall have 35% of the original application fee, minus the cost of all public notices published or broadcast, refunded or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.

(10) An applicant who withdraws an application between 30 and 60 days after receipt by the director shall be issued a refund which is equal to 20% of the original application fee, minus the cost of all public notices published or broadcast, or shall be charged actual review costs if the option under subrule (3) of this rule was chosen.

History: 1985 AACS; 1988 AACS.

R 299.9508 Operating license application contents.

Rule 508. (1) An application for an operating license shall include all of the following, except as provided for in subrule (3) of this rule:

(a) The names and addresses of the owner and the operator, including the name and address of the titleholder of the land on which the treatment, storage, or disposal facility is constructed; the location and description of the disposal facility; and other information pertinent to evaluation of the facility which is required by the director on an application form provided by the director.

(b) All information required for a construction permit application pursuant to R 299.9504.

(c) For a treatment, storage, or disposal facility which has a construction permit under part 111 of the act, any revisions to the cost estimates for closure and for postclosure maintenance and monitoring submitted with the construction permit application, and a written certification of construction pursuant to section 23(3) of part 111 of the act.

(d) A certification of the treatment, storage, or disposal facility's capability for disposing of hazardous waste, except as provided in subdivision (g) of this subrule. The certification shall be prepared and sealed by a registered professional engineer.

(e) Proof of financial capability as required by part 7 of these rules.

(f) Proof of issuance of all necessary state environmental permits for construction and operation of the treatment, storage, or disposal facility or portion of the facility.

(g) An owner or operator of a facility which meets the criteria of R 299.9502(2), (3), and (4) who cannot demonstrate compliance as required under section 23(3) of part 111 of the act shall submit a written program designed to bring the facility into compliance with part 111 of the act and these rules within 2 years from the date of license issuance. At a minimum, the program shall specify the necessary modifications to any procedure, equipment, process, or portion of the facility, together with the expected dates of completion. The provisions of this subdivision may only be exercised in the first operating license application after the effective date of these rules and shall not be exercised in subsequent applications for license renewal.

(h) A license fee of \$500.00.

(i) For a landfill, proof that an instrument imposing a restrictive covenant upon the land involved has been executed by all the owners of the tract of land upon which the landfill is to be located and by the director, as required by section 39 of part 111 of the act.

(2) The director shall waive the hydrogeological report requirements of R 299.9506 for existing facilities other than landfills, surface impoundments, waste piles, or land treatment facilities if all treatment, storage, and waste-handling activities take place

inside or under a structure that provides protection from precipitation and runoff and if the facility is in compliance with part 6 of these rules.

(3) An application for an operating license for the postclosure period shall include all of the following information, unless the director determines that additional information specified in R 299.9505, R 299.9506, or R 299.9508 is necessary:

(a) The information specified in 40 C.F.R. §270.14(b)(1), (4) to (6), (11), (13), (14), (18), and (19) and (d).

(b) The information specified in R 299.9506.

(c) The most recent postclosure cost estimate prepared in accordance with R 299.9702.

(d) A copy of the documentation required to demonstrate compliance with R 299.9703.

(4) Owners or operators are required to submit the same information required in subrule (3) of this rule when an alternate authority is used in place of an operating license for the postclosure period as provided for in part 5 of these rules.

(5) Operating license applications shall be signed and certified in accordance with the provisions of 40 C.F.R. §270.11 and by the title holder of the land upon which the facility is located.

(6) The provisions of 40 C.F.R. §§270.11 and 270.14(b) and (d) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1996 AACS; 2000 AACS.

R 299.9509 Submittal and processing of construction permit applications.

Rule 509. (1) Any person who requires a construction permit under part 111 of the act shall complete, sign, and submit, to the director, an application for each construction permit required under R 299.9501 as described in this rule. All applicants for construction permits shall provide the information set forth in R 299.9504 to the director on the application form provided by the director.

(2) The director shall not begin processing a construction permit application until it is complete. An application for a construction permit is complete when the director receives an application which includes all the information required by section 18(3) of part 111 of the act and R 299.9504. The completeness of any application for a construction permit shall be judged independently of the status of any other permit or permit application for the same facility. The statutory timetable of section 19(2) of part 111 of the act and the timetable of subrule (4) of this rule shall begin upon receipt of a complete construction permit application.

(3) When a facility or activity is owned by 1 person, but is operated by another person, it is the operator's duty to obtain a construction permit, except that the owner and titleholder of the land shall also sign the permit application.

(4) The director, or his or her designee, shall notify the applicant within 30 days after receipt of a construction permit application. Such notification shall include the date of receipt and whether any required items of an administrative nature were missing. This notice will not include all areas where the application is technically incomplete.

(5) The director, or his or her designee, shall notify the applicant of the construction permit status within 75 days after the complete construction permit application is received.

(6) The director shall recommend approval or shall deny a construction permit application within 120 days after the director receives a complete construction permit application.

(7) If the director intends to deny the construction permit application, the director, or his or her designee, shall commence a public participation process in accordance with R 299.9511.

(8) As directed by the site review board, the director shall either prepare a draft construction permit or deny the construction permit. Upon being directed to do so, the director shall commence a public participation process in accordance with R 299.9511.

(9) Applicants shall keep records of all data used to complete construction permit applications and any supplemental information submitted under R 299.9504 for a period of not less than 3 years from the date the application is signed.

History: 1985 AACS; 1998 AACS.

R 299.9510 Submittal and processing of operating license applications.

Rule 510. (1) Any person who requires an operating license under part 111 of the act shall complete, sign, and submit, to the director, an application for each license required under R 299.9502, as described in this rule. Persons with interim status currently authorized to operate without a license as provided by R 299.9502 shall apply for operating licenses when required by the director. Procedures for applications, issuance and administration of emergency operating licenses, and research licenses are found exclusively in R 299.9501.

(2) All applicants for operating licenses shall provide the information set forth in R 299.9508 to the director and shall use the application form provided by the director.

(3) The director, or his or her designee, shall not begin the processing of an operating license application until it is complete, except for emergency operating licenses under R 299.9501. An application for an operating license is complete when the director receives an application which includes that information required by R 299.9508. The completeness of any application for an operating license shall be judged independently of the status of any other permit or permit application for the same facility.

(4) When a facility or activity is owned by 1 person, but is operated by another person, it is the operator's duty to obtain a license, except that the owner and titleholder of the land shall also sign the license application.

(5) Any hazardous waste treatment, storage, or disposal facility with an effective operating license shall submit a new license application under R 299.9508 not less than 180 days before the expiration date of the existing operating license, unless permission for a later date has been granted by the director. The director shall not grant permission for applications to be submitted later than the expiration date of the existing operating license.

(6) The director shall make a final decision on an operating license application within 140 days after the director receives a complete application.

(7) Before making a final decision on an operating license, the director shall, when authorized under the provisions of 40 C.F.R. Part 271, complete the public participation process specified in R 299.9511. The director may extend the 140-day deadline of subrule (6) of this rule to complete this process.

(8) Applicants shall keep records of all data used to complete operating license applications and any supplemental information submitted under R 299.9508 for a period of not less than 3 years from the date the application is signed.

(9) The director may separately license treatment, storage, and disposal facility units at the same facility if these units have different owners or operators or if these units have significantly different impacts or potential impacts on public health and the environment.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9511 Public participation procedures.

Rule 511. (1) Except as provided for in subrule (2) of this rule, the requirements of this subrule apply to any person required to obtain a construction permit or operating license under the act or these rules. Applicants shall comply with all of the following requirements:

(a) Prior to submission of an application, the applicant shall hold at least 1 public meeting in order to solicit comments from the public and inform the public of the proposed hazardous waste management activities.

(b) The applicant shall post a sign-in sheet or otherwise provide an opportunity for the preapplication meeting attendees to provide their names and addresses.

(c) The applicant shall provide notice of the preapplication meeting not less than 30 days in advance of meeting. The applicant shall maintain documentation of the preapplication meeting notice and provide the documentation to the director upon request. The notice of the preapplication meeting shall comply with the following requirements:

(i) The notice shall include all of the following information.

(A) The date, time, and location of the meeting.

(B) A brief description of the purpose of the meeting.

(C) A brief description of the facility and proposed operations, including, the facility address or a map of the facility location.

(D) A statement encouraging persons to contact the facility not less than 72 hours before the meeting if they require special accommodations to participate in the meeting.

(E) The name, address, and telephone number of the applicant's contact person.

(ii) The notice shall be provided by the applicant in all of the following forms:

(A) Published as a display advertisement in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. If the director determines that publication in newspapers of general circulation in the

adjacent counties or equivalent jurisdictions is necessary to inform the affected public, the director shall advise the applicant to provide a notice in those newspapers.

(B) Posted as a notice on a clearly marked sign at or near the facility. If the applicant places the sign on the facility property, the sign shall be large enough to be readable from the nearest point where the public would pass by the facility.

(C) Broadcast a notice at least once on 1 local radio station or television station. The applicant may employ another medium with prior approval from the director.

(d) The applicant shall provide a copy of the newspaper publication of the preapplication meeting notice to the director and the appropriate units of state and local government in accordance with 40 C.F.R. §124.10 (c)(1)(x).

(2) The requirements of subrule (1) of this rule do not apply to any of the following:

(a) A renewal operating license application which does not propose any significant changes in facility operations. For the purposes of this subdivision, "significant changes" shall mean any changes that would qualify as a major modification under the provisions of R 299.9519.

(b) An operating license application which is submitted solely to address postclosure requirements or postclosure and corrective action requirements.

(c) An operating license modification submitted in accordance with the provisions of R 299.9519.

(d) A construction permit or operating license application submitted before the effective date of these rules.

(3) Except as provided for in subrule (4) of this rule, the director shall comply with all of the following requirements upon receipt of a construction permit or operating license application pursuant to the act or these rules:

(a) Within a reasonable period of time after the application is received, provide the facility mailing list and appropriate units of state and local government with notice in accordance with the provisions of 40 C.F.R. §124.10(c)(1)(x) that the application has been submitted to the department and is available for review. The notice shall include all of the following information:

(i) The name, address, and telephone number of the applicant's contact person.

(ii) The name, address, and telephone number of the department's contact.

(iii) The mailing address to which information, comments, and inquiries may be submitted to the department throughout the application review process.

(iv) The address to which persons may write to be placed on the facility mailing list.

(v) The location where a copy of the application and any supporting documents may be viewed and copied.

(vi) A brief description of the facility and proposed operations, including, the facility address or a map of the facility location, on the front page of the notice.

(vii) The date that the application was received by the department.

(b) Concurrent with the notice provided in subdivision (a) of this subrule, place the application and any supporting documents in a location accessible to the public in the vicinity of the facility or at an appropriate department office.

(4) The requirements of subrule (3) of this rule do not apply to either of the following:

(a) An operating license application which is submitted solely to address postclosure requirements or postclosure and corrective action requirements.

(b) A minor operating license modification as specified in the provisions of R 299.9519(5) and (9).

(5) The director shall comply with all of the following requirements upon receipt of a construction permit or operating license application pursuant to the act or these rules:

(a) Assess the need, on a case-by-case basis, for an information repository based on the following information:

(i) The level of public interest.

(ii) The type of facility.

(iii) The presence of an existing repository.

(iv) The proximity of the facility to the nearest copy of the administrative record.

(b) If it is determined that an information repository is needed at any time after submittal of the application, notify the applicant that he or she shall establish and maintain an information repository in compliance with the following requirements:

(i) The information repository shall include all documents, reports, data, and information deemed necessary by the director to fulfill the purposes for which the repository is established. The director shall have the discretion to limit the contents of the information repository.

(ii) The information repository shall be located and maintained at a site selected by the applicant. However, if the director finds that the site selected by the applicant is unsuitable for the purposes or persons for which the information repository is established, due to problems with the location, hours of availability, access, or other relevant considerations, the director shall specify a more appropriate site for the information repository.

(iii) The information repository shall be maintained and updated by the applicant for the time period specified by the director.

(c) Specify the requirements for informing the public about the information repository. At a minimum, the director shall require the applicant to provide a written notice about the information repository to all individuals on the facility mailing list.

(d) Based on the factors outlined in subdivision (a) of this subrule, make decisions regarding the appropriateness of closing the information repository and notify the applicant accordingly.

(6) For applications for incinerators, boilers, or industrial furnaces, the director shall provide notice to all persons on the facility mailing list and to the appropriate units of state and local government in accordance with the provisions of 40 C.F.R. - 124.10(c)(1)(x) announcing the following:

(a) The scheduled commencement and completion dates for the trial burn. The notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the department. The notice, which shall be issued before the applicant may commence the trial burn, shall contain all of the following information:

(i) The name, address, and telephone number of the applicant's contact person.

(ii) The name, address, and telephone number of the department's contact person.

(iii) The location where the approved trial burn plan and any supporting documents may be reviewed and copied.

(iv) The expected time period for commencement and completion of the trial burn.

(b) The department's intention to approve the trial burn plan in accordance with the timing and distribution requirements of 40 C.F.R. §§270.62(b)(6) and 270.66(d)(3) as applicable. The notice shall contain all of the following information:

(i) The name, address, and telephone number of the facility contact person.

(ii) The name, address, and telephone number of the department's contact person.

(iii) The location where the approved trial burn plan and any supporting documents may be reviewed and copied.

(iv) A schedule of the activities that are required prior to license issuance, including the anticipated time for department approval of the trial burn plan and the time period during which the trial burn will be conducted.

(7) Before making a final decision on a major permit modification or major license modification, construction permit application, or operating license application, the director or his or her designee shall, when authorized pursuant to the provisions of 40 C.F.R. part 271, do the following:

(a) Prepare either a draft major permit modification or major license modification, construction permit, operating license, or a notice of intent to deny.

(b) For major facilities, prepare a fact sheet pursuant to the provisions of R 299.9512 that briefly sets forth the significant factual, methodological, and policy questions considered in preparing the draft major permit modification or major license modification, construction permit, operating license, or notice of intent to deny and send this fact sheet to the applicant and, upon request, any other person.

(c) Publish a public notice that a draft construction permit, operating license, or notice of intent to deny has been prepared and allow not less than 45 days for public comment.

(d) Publish a public notice that a draft major permit modification or major license modification has been prepared and allow not less than 60 days for public comment.

(e) Provide public notice of any public hearing scheduled pursuant to the provisions of R 299.9514 not less than 30 days before the hearing date.

(f) Prepare and make available to the public a response to comments on the draft major permit modification or major license modification, construction permit, operating license, or notice of intent to deny, which shall do all of the following:

(i) Specify which provisions of the draft major permit modification or major license modification, construction permit, or operating license have been changed, if any, and the reasons for the changes.

(ii) Briefly describe and respond to all significant comments raised during the public comment period or any hearing.

(iii) Indicate whether the comment period is to be reopened or extended or, in the case of a construction permit application, whether the site review board is to be reconvened.

(iv) For notices of intent to deny, the reasons for denial.

(8) If the director decides to prepare a draft construction permit or operating license, he or she shall prepare a draft permit or license that contains the information specified in the provisions of R 299.9521.

(9) Draft major permit modifications or major license modifications, permits, and licenses that are prepared by the director pursuant to the provisions of this rule shall be accompanied by a fact sheet pursuant to the provisions of R 299.9512, publicly noticed pursuant to the provisions of R 299.9513, and made available for public comment. The director shall give notice of the opportunity for a public hearing pursuant to the provisions of R 299.9514, issue a final decision, and respond to comments pursuant to the provisions of R 299.9515.

History: 1985 AACS; 1994 AACS; 1998 AACS.

R 299.9512 Fact sheets.

Rule 512. A fact sheet on a draft construction permit, operating license, or notice of intent to deny shall include all of the following information after the director is authorized under the provisions of 40 C.F.R. part 271 to administer and enforce part 111 of the act and these rules instead of the federal program:

(a) A brief description of the type of facility or activity that is subject to a final decision.

(b) The type and quantity of wastes, fluids, or pollutants that are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged.

(c) Reasons why any requested variances or alternatives to minimum standards do or do not appear justified.

(d) A description of the procedures for reaching a final decision, including all of the following:

(i) The beginning and ending dates of the comment period under R 299.9511(7)(c) and the address where comments will be received.

(ii) Procedures for requesting a hearing and the nature of that hearing.

(iii) Other procedures by which the public may participate in the final decision.

(e) Name and telephone number of a person to contact for more information.

History: 1985 AACS; 1998 AACS.

R 299.9513 Public notices.

Rule 513. (1) Public notices of draft construction permits, operating licenses, notices of intent to deny, and public hearings shall be given by the following methods after the director is authorized under the provisions of 40 C.F.R. part 271 to enforce and administer part 111 of the act and these rules in lieu of the federal program:

(a) By mailing a copy of the notice, fact sheet, construction permit or operating license application, and draft construction permit or operating license to all of the following entities:

(i) The applicant.

(ii) Any other agency which the director knows has issued or is required to issue an environmental permit for the same facility.

(iii) Federal and state agencies with jurisdiction over the following:

(A) Fish, shellfish, and wildlife resources.

- (B) Coastal zone management plans.
- (C) The advisory council on historic preservation.
- (D) State historic preservation officers.
- (E) Other appropriate government authorities, including any affected states.
- (iv) Any unit of local government having jurisdiction over the area where the facility is proposed to be located.
- (v) Each state agency having any authority under state law with respect to the construction or operation of such facility.
- (b) By mailing a copy of the notice to persons on a facility mailing list developed pursuant to subrule (3) of this rule.
- (c) By any method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.
- (d) By publication of a notice in a daily or weekly major local newspaper of general circulation and by broadcasting over local radio stations.
- (e) By posting the notice at the principal office of the department and any other locations considered appropriate by the director.
- (2) All public notices required by this rule shall contain all of the following information:
 - (a) Name and address of the office processing the construction permit or operating license.
 - (b) Name and address of the applicant and the facility at issue.
 - (c) A brief description of the business conducted at the facility or activity described in the application or draft permit or license.
 - (d) Name, address, and telephone number of a person or agency from whom interested persons may obtain further information, including copies of the draft construction permit or operating license, fact sheet, and application.
 - (e) A brief description of the comment procedures required by R 299.9511 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing and other procedures by which the public may participate in the final decision.
 - (f) For notices of public hearings, all of the following information:
 - (i) References to the date of previous public notices relating to the application.
 - (ii) Date, time, and place of the hearing.
 - (iii) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.
 - (iv) Any other information required by act 306.
 - (g) Any additional information considered necessary and proper.
- (3) The director or his or her designee shall develop a facility mailing list which includes the following persons:
 - (a) Those who request in writing to be on the list.
 - (b) Participants from past application proceedings under part 111 of the act in that area.
- (4) The director or his or her designee shall notify the public of the opportunity to be put on the mailing list through publication in the public press and in such publications as regional and state-funded newsletters.

History: 1985 AACS; 1998 AACS.

R 299.9514 Public hearings.

Rule 514. (1) During the public comment period provided under R 299.9511(7)(c), any interested person may submit written comments to the director on the draft construction permit, operating license, or notice of intent to deny and may request a public hearing if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised at the hearing. All comments shall be considered in making the final decision on a public hearing and shall be answered as provided in R 299.9515.

(2) The director or his or her designee shall hold a public hearing if 1 of the following occurs:

(a) The director finds, on the basis of responses, a significant degree of interest in a draft construction permit, operating license, or notice of intent to deny.

(b) The director determines that a hearing may clarify 1 or more issues involved in the final decision on a construction permit or operating license.

(c) The director receives written notice of opposition to a draft construction permit, operating license, or notice of intent to deny within 45 days of the notice required pursuant to R 299.9511(7)(c).

(3) Public notice of the hearing shall be given as specified in R 299.9513.

(4) During a public hearing, any person may submit oral or written statements and data concerning the draft construction permit, operating license, or notice of intent to deny. The public comment period under R 299.9511(7)(c) shall automatically be extended to the close of any public hearing under this rule. The hearings officer may also extend the comment period by so stating at the hearing.

(5) When possible, the director or his or her designee shall schedule a public hearing on a draft construction permit, operating license, or notice of intent to deny at a location convenient to the nearest population center to the proposed facility.

(6) A tape recording or written transcript of the hearing shall be made available to the public.

History: 1985 AACS; 1998 AACS; 2004 AACS.

R 299.9515 Revisions based on public comment; response to comments.

Rule 515. (1) Upon completion of the public participation process for a construction permit or operating license application, the director shall review all comments made during that process and make a final decision on the issuance of the permit or license under the provisions of act 306.

(2) If the director determines through the public participation process that significant errors were made in the construction permit process, the director shall reconvene the site review board to evaluate whether the action of the board should be modified.

(3) The director shall give public notice of actions taken under subrule (2) of this rule under the requirements of R 299.9513.

(4) At the time that any construction permit or operating license is issued, the director shall issue a response to comments which does both of the following:

(a) Briefly describes and responds to all significant comments on the draft permit or license raised during the public comment period or during any hearing.

(b) Specifies which provisions, if any, of the draft construction permit or operating license have been changed in the final permit or license and the reason for the change.

(5) The director shall make the response to comments prepared under subrule (4) of this rule available to the public.

History: 1985 AACS; 1988 AACS.

R 299.9516 Construction permit and operating license duration and effect.

Rule 516. (1) A construction permit is valid for 3 years from the date of issuance. The permit remains valid for a period of not more than 10 years if construction is initiated within the 3-year period and proceeds in a continuous manner.

(2) Extensions of a construction permit may be granted by the director if unexpected construction delays occur beyond the control of the permittee.

(3) An operating license shall be effective for a fixed term of not more than 10 years. Each operating license for a land disposal facility shall be reviewed by the director 5 years after the date of license issuance or reissuance and shall be modified as necessary in accordance with the provisions of R 299.9519 and R 299.9520. The term of an operating license shall not be extended by modification beyond the maximum duration specified in this subrule.

(4) The director may issue any operating license for a duration that is less than the full allowable term under this rule.

(5) A construction permit or operating license may be modified or revoked during its term for cause as set forth in R 299.9519.

(6) The issuance of a construction permit or operating license does not relieve the owner or operator of his or her duty to comply with the statutory or regulatory requirements applicable to the facility that were enacted or promulgated after the permit or license was issued.

(7) The issuance of a construction permit or operating license does not convey any property rights of any sort or any exclusive privilege.

(8) The issuance of a construction permit or operating license does not authorize any injury to persons or property or invasion of other private rights or any infringement of other state or local law or regulations, except as otherwise specified in section 21 of part 111 of the act.

History: 1985 AACS; 1988 AACS; 1996 AACS.

R 299.9517 Construction permit denial.

Rule 517. (1) The director shall deny an application for a construction permit if the proposed treatment, storage, or disposal facility would violate part 111 of the act or these rules.

(2) The applicant is on notice that the director shall deny the construction permit in either of the following situations:

(a) The applicant has not submitted the appropriate permit fee.

(b) The applicant has not submitted sufficiently detailed or accurate information to enable the director to make reasonable judgments as to whether the facility could comply with part 111 of the act and these rules.

(3) The director shall notify the applicant, in writing, of reasons for denial.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9518 Operating license denial.

Rule 518. (1) The director shall deny an application for an operating license if the operation of the treatment, storage, or disposal facility for which the license is sought will violate part 111 of the act or these rules.

(2) The applicant is on notice that, in addition to any other of these rules, the director shall deny an operating license application if any of the following occur:

(a) Notwithstanding the receipt of the certification of construction required by section 23(3) of part 111 of the act, the facility has not been constructed according to the plans approved by the director, the requirements of part 111 of the act or these rules, or the stipulations and conditions of the approved construction permit.

(b) The existing construction or operation of an existing facility or facility newly subjected to the licensing requirements of part 111 of the act and these rules presents a hazard to the public health or the environment.

(c) The applicant has not submitted sufficiently detailed or accurate information to enable the director to make reasonable judgments as to whether the license should be granted.

(3) The criteria specified for license revocation pursuant to the provisions of R 299.9519 are causes for denial of an operating license renewal application.

(4) When an application is denied, the applicant shall be notified, in writing, of the reasons for denial.

(5) If an initial operating license application is denied, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted. Upon denial of an initial operating license application, the applicant may seek judicial review pursuant to the provisions of section 631 of act 236. Initial operating license applications shall include those applications for facilities for which interim status has been obtained pursuant to the provisions of 40 C.F.R. -270.70.

(6) If a renewal operating license application is denied, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted, unless the applicant appeals the denial and initiates proceedings pursuant to the applicable

provisions of act 236 or 306. If the applicant initiates proceedings pursuant to the applicable provisions of act 236 or act 306 and the denial is upheld pursuant to such proceedings, the applicant shall cease all hazardous waste treatment, storage, limited storage, and disposal activities at the facility for which the application was submitted and perform closure in accordance with R 299.9613 for all hazardous waste treatment, storage, limited storage, and disposal units at the facility for which the application was submitted.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1998 AACS.

R 299.9519 Modification, revocation, and suspension of construction permits and operating licenses during their terms.

Rule 519. (1) An owner or operator shall construct, operate, and maintain a facility pursuant to part 111 of the act, these rules, and the construction permit or operating license issued to the facility pursuant to part 111 of the act. Any deviation from the conditions of a permit or license or from approved plans shall require prior approval by the director, unless otherwise specified in this rule, and, if necessary, modification of the permit or license.

(2) If the director receives any information during the term of a construction permit or operating license, for example, inspects the facility, receives information submitted by the licensee as required in the license, receives a request for modification or revocation pursuant to this rule, or conducts a review of the license file, then he or she may determine if 1 or more of the causes listed in subrule (3) of this rule for modification or subrule (11) of this rule for revocation, or both, exist. If cause exists, the director may commence proceedings pursuant to act 306 to modify or revoke a construction permit or operating license accordingly, subject to the limitation of subrule (4) of this rule, and may request an updated application pursuant to R 299.9520, if necessary. If an operating license is modified, then only the conditions subject to modification are reopened. If a construction permit or operating license modification satisfies the criteria of subrule (5) of this rule for a minor modification, or if the director has not yet been authorized pursuant to 40 C.F.R. part 271, then the license may be modified pursuant to subrule (6) of this rule. Otherwise, a draft license shall be prepared and other procedures specified in R 299.9511 followed.

(3) Any of the following are causes for modification of a construction permit or operating license:

(a) The causes listed pursuant to 40 C.F.R. §270.41(a), except 40 C.F.R. §270.41(a)(3).

(b) If the standards or regulations on which the permit or license was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit or license was issued.

(c) To modify a monitoring program pursuant to R 299.9611 or R 299.9612.

(d) Cause exists for modification pursuant to subrule (5) of this rule and the director determines that modification is appropriate.

(e) The director has received notification pursuant to R 299.9522 of a proposed transfer of ownership or operation.

(4) The director shall not consider suitability of the facility location at the time of construction permit or operating license modification, suspension, or revocation, or at the time of reviewing the initial operating license for a facility that received a construction permit, unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit or license issuance. In addition, the director shall not modify a construction permit beyond what is authorized in the construction permit.

(5) The permittee or licensee may put into effect the following minor permit modifications or minor license modifications without following the procedures specified in R 299.9511, if the permittee or licensee complies with subrule (6) of this rule:

(a) Any of the following general permit or license modifications:

(i) An administrative and information change.

(ii) A correction of a typographical error.

(iii) Equipment replacement or upgrading with functionally equivalent elements, for example pipes, valves, pumps, conveyors, or controls.

(iv) A change in the frequency of, or procedures for, monitoring, reporting, sampling, or maintenance activities to provide for more frequent monitoring, reporting, sampling, or maintenance.

(v) A change in the interim compliance dates in the schedule of compliance if the prior written approval of the director is obtained.

(vi) A change in the expiration date of the permit or license to allow earlier permit or license termination if the prior written approval of the director is obtained.

(vii) A change in the ownership or operational control of a facility if the procedures specified in R 299.9522 are followed and if the prior written approval of the director is obtained.

(viii) Changes to remove operating license or construction permit conditions that are no longer applicable because the standards upon which they are based are no longer applicable to the facility if prior written approval from the director is obtained.

(b) Any of the following general facility modifications:

(i) A change to waste sampling or analysis methods to conform to agency guidelines or regulations.

(ii) A change to waste sampling or analysis methods to incorporate change associated with F039 (multisource leachate) sampling or analysis methods.

(iii) A change to waste sampling or analysis methods to incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes if the prior written approval of the director is obtained.

(iv) A change in a sampling or analysis procedure or monitoring schedule if the prior written approval of the director is obtained.

(v) A change to analytical quality assurance/control plans to conform to department guidelines or rules.

(vi) A change in procedures for maintaining the operating record.

(vii) A change in the contingency plan to reflect the replacement of emergency equipment with functionally equivalent equipment, the upgrade of emergency equipment, or the relocation of emergency equipment listed.

(viii) A change to the training plan, other than those changes that affect the type of, or decrease the amount of, training given to employees.

(ix) The replacement of emergency equipment with functionally equivalent emergency equipment, the upgrade of emergency equipment, or the relocation of emergency equipment listed in the contingency plan.

(x) A change in the name, address, or phone number of a coordinator or another person or agency identified in the contingency plan.

(xi) A change in the procedures used to empty hazardous waste from transport vehicles and other containers.

(xii) A change that the construction quality assurance officer certifies will provide equivalent or better certainty that the unit components meet the design specifications. The certification shall be provided in the facility operating record.

(c) Any of the following groundwater protection modifications:

(i) Replacement of an existing well that has been damaged or rendered inoperable without changing the location, design, or depth of the well.

(ii) A change in groundwater sampling or analysis procedure or monitoring schedule if the prior written approval of the director is obtained.

(iii) A change in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred if the prior written approval of the director is obtained.

(d) Any of the following changes to closure plans:

(i) A change in the estimate of maximum inventory of waste on site at any time during the active life of the facility, not to exceed the approved process design capacity of the facility if the prior written approval of the director is obtained.

(ii) A change in the closure schedule for any unit, a change in the final closure schedule for the facility, or extension of the closure period if the prior written approval of the director is obtained.

(iii) A change in the expected year of final closure, if other permit or license conditions are not changed and if the prior written approval of the director is obtained.

(iv) A change in procedure for the decontamination of facility equipment or structures if the prior written approval of the director is obtained.

(v) The addition of temporary tanks used for neutralization, dewatering, phase separation, or other separation with the prior written approval of the director.

(e) Any of the following postclosure modifications:

(i) A change in the name, address, or phone number of the contact person in the postclosure plan.

(ii) A change in the expected year of final closure if other permit or license conditions are not changed.

(f) The addition of a roof to a container unit without altering the containment system.

(g) The replacement of a tank with a tank that is in compliance with the same design standards, has the same capacity of the replaced tank, and is in compliance with the same conditions in the permit or license, or both.

(h) The replacement of a waste pile unit with another waste pile unit of the same design and capacity and which is in compliance with all the waste pile conditions in the permit or license, or both.

(i) Any of the following land treatment modification:

(i) A decreased rate of waste application.

(ii) A change in any condition specified in the permit or license for a land treatment unit to reflect the results of the land treatment demonstration if performance standards are met and if the prior written approval of the director is obtained.

(iii) A change to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, if the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and if the prior written approval of the director is obtained.

(j) Any of the following incinerator, boiler, or industrial furnace modifications:

(i) Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operation readiness after construction if the prior written approval of the director is obtained.

(ii) A change in the operating requirements specified in the permit or license for conducting a trial burn, if the change is minor and if the prior written approval of the director is obtained.

(iii) A change in the ranges of the operating requirements specified in the permit or license to reflect the results of the trial burn, if the change is minor and if the prior written approval of the director is obtained.

(iv) Substitution of an alternate type of nonhazardous waste fuel that is not specified in the permit or license if the prior written approval of the director is obtained.

(v) Technology changes necessary to meet the standards under 40 C.F.R. part 63, subpart EEE, if the owner or operator complied with the notification of intent to comply requirements of 40 C.F.R. §63.1210 that were in effect before October 11, 2000, and if prior written approval is obtained from the director.

(k) Technology changes necessary to meet the standards under 40 C.F.R. part 63, subpart EEE that were promulgated on October 12, 2005, if the owner or operator complied with the notification of intent to comply requirements of 40 C.F.R. §§63.1210(b) and 63.1212(a) and if prior written approval is obtained from the director.

(l) Waiver of operating and emission limits as necessary to support the transition to 40 C.F.R. part 63, subpart EEE, if all of the following requirements are met and if prior written approval is obtained from the director:

(i) The specific operating and emission limits for which the waiver is requested shall be identified in writing.

(ii) An explanation of why the changes are necessary to minimize or eliminate conflicts between the permit or license and the maximum achievable control technology standards compliance shall be provided in writing.

(iii) An explanation of how the revised provisions will be sufficiently protective shall be provided in writing.

(iv) If the modification is being requested in conjunction with maximum achievable control technology performance testing where the permit or license limits may only be waived during actual test events and pretesting, as defined under 40 C.F.R. §63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation,

the request shall be provided at the same time the test plans are submitted to the director. The director may approve or deny the request contingent upon approval of the test plans.

(m) Any of the following burden reduction changes:

(i) The development of 1 contingency plan based on integrated contingency plan guidance pursuant to 40 C.F.R. §264.52(b).

(ii) Changes to recordkeeping or reporting requirements pursuant to 40 C.F.R. §§264.56(i), 264.113(e)(5), 264.196(f), 264.343(a)(2), 264.1061(b)(1) or (d), or 264.1062(a)(2), or R 299.9629(10).

(iii) Changes to the inspection frequency for tank systems pursuant to 40 C.F.R. §264.195(b).

(iv) Changes to a detection or a compliance monitoring program pursuant to 40 C.F.R. §§264.98(d), (g)(2), or (g)(3), or 264.99(f) or (g).

(6) For minor permit modifications or minor license modifications, the permittee or licensee shall do both of the following:

(a) Notify the director concerning the minor modification by certified mail or other means that establish proof of delivery. For minor modifications that do not require the prior written approval of the director, the notification shall be made within 7 calendar days after the change is put into effect. For minor modifications that do require the prior written approval of the director, the notification shall be made before the change is put into effect. The notification shall be in compliance with all of the following provisions:

(i) Contain a minor modification request for the director's approval, if required.

(ii) Specify the exact change or changes being made or to be made to the permit or license conditions or supporting documents referenced by the permit or license.

(iii) Identify that the modification is a minor modification.

(iv) Explain why the modification is necessary.

(v) Provide the applicable information required pursuant to R 299.9504 and R 299.9508, as appropriate.

(b) Send a notice of the minor modification to all persons on the facility mailing list that is maintained by the director pursuant to 40 C.F.R. §124.10(c)(viii) and the appropriate units of state and local government pursuant to 40 C.F.R. §124.10(c)(ix). The notification shall be made within 90 days after the change is put into effect. For minor modifications that require the prior written approval of the director, the notification shall be made within 90 calendar days after the director approves the minor modification request.

(7) Any person may request that the director review any minor permit modification or minor license modification. The director may reject for cause. The director shall inform the permittee or licensee by certified mail that a minor permit modification or minor license modification has been rejected and explain the reasons for the rejection. If a minor permit modification or minor license modification is rejected, the permittee or licensee shall comply with the existing permit or license conditions.

(8) For minor permit modifications or minor license modifications, the permittee or licensee may elect to follow the procedures specified in R 299.9511 instead of the minor permit modification or minor license modification procedures. The

permittee or licensee shall inform the director of this decision in the notice that is required in subrule (6) of this rule.

(9) Any modification that is not specifically listed in subrule (5) of this rule shall be considered a major permit modification or major license modification and shall be subject to the requirements of R 299.9511 and R 299.9520, unless all of the following conditions are met:

(a) The licensee or permittee demonstrates, to the director's satisfaction, that a modification is in compliance with the criteria for a minor modification. In determining the appropriate classification for a modification, the director shall consider the similarity of the modification to other modifications listed in subrule (5) of this rule. Minor modifications apply to minor changes that keep the permit or license current with routine changes to the facility or its operation. These changes do not substantially alter the permit or license conditions or reduce the capacity of the facility to protect human health or the environment.

(b) The modification does not authorize the physical construction of a new treatment, storage, or disposal facility; the expansion or enlargement beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility; or the alteration of the method of treatment or disposal previously authorized at a treatment, storage, or disposal facility to a different method of treatment or disposal.

(c) The classification of the modification is not less stringent than that allowed pursuant to RCRA.

(10) For major permit modifications or major license modifications, the permittee or licensee shall submit a major modification request to the director by certified mail or by other means that establish proof of delivery. The request shall be made before the change is put into effect. The request shall be in compliance with all of the following provisions:

(a) Describe the exact change or changes to be made to the permit or license conditions or supporting documents referenced by the permit or license.

(b) Identify that the modification is a major modification.

(c) Explain why the modification is necessary.

(d) Provide the applicable information required pursuant to R 299.9504 and R 299.9508, as appropriate.

(11) A construction permit or operating license may be revoked for any of the following reasons:

(a) Noncompliance by the permittee or licensee with part 111 of the act, these rules, or any condition of the construction permit or operating license.

(b) A determination that the licensed activity endangers human health or the environment.

(c) The owner or operator fails in the application or during the construction permit or operating license issuance process to disclose fully all relevant facts or at any time misrepresents any relevant facts.

(12) Requests for construction permit or operating license modification by a permittee or licensee and updated applications requested by the director pursuant to subrule (2) of this rule shall be made on forms provided by the director.

(13) An operating license may be suspended pursuant to act 306.

(14) The provisions of 40 C.F.R. part 63, subpart EEE and §§264.52(b), 264.56(i), 264.98(d) and (g)(2) and (3), 264.99(f) and (g), 264.113(e)(5), 264.195(b), 264.196(f), 264.343(a)(2), 264.1061(b)(1) and (d), 264.1062(a)(2), 270.41(a), except 40 C.F.R. §270.41(a)(3), are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9520 Procedures for modification or revocation of construction permits and operating licenses.

Rule 520. (1) Any interested person, including the licensee, may request the director to commence proceedings under act 306 to modify, suspend, or revoke a construction permit or operating license. All requests shall be in writing and shall contain facts or reasons supporting the request. If the director decides the request is not justified, he or she shall send the requestor a written response giving a reason for the decision.

(2) If the director decides to commence proceedings under act 306 to modify a construction permit or operating license under R 299.9519(2), he or she shall prepare a draft construction permit or operating license incorporating the proposed changes. The director may request submission of an updated permit or license application. During any modification proceeding, the permittee or licensee shall comply with all conditions of the existing permit or license until the permit or license is modified.

(3) If the director decides to commence proceedings under act 306 to revoke a construction permit or operating license under this rule, he or she shall issue a notice of intent to revoke and, when authorized under title II of the solid waste disposal act, follow those public participation procedures specified in R 299.9511.

(4) If a construction permit or operating license is revoked, the director shall order the owner or operator to carry out closure procedures under section 51 of part 111 of the act and shall require the cessation of all activities at the facility subject to permitting or licensure under part 111 of the act, except those necessary for closure.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9521 Operating license conditions.

Rule 521. (1) All operating licenses shall contain all of the following general conditions:

(a) The general conditions contained in the provisions of 40 C.F.R. §270.30, except §270.30(1)(1) and (8). For purposes of these conditions the word "licensee" shall replace the word "permittee" and the term "part 111 of the act" shall replace the term "RCRA."

(b) The following additional conditions:

(i) The licensee shall not initiate an enlargement, alteration, or expansion beyond the previously authorized design capacity or area of a treatment, storage, or disposal facility without first obtaining a construction permit from the director.

(ii) For a facility being modified, the permittee or licensee shall not treat, store, or dispose of hazardous waste in the modified portion of the facility until 1 of the following conditions is met:

(A) The licensee has submitted, to the director, by certified mail or hand delivery, a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the license and approved plans, and the director has inspected the modified facility and finds it is in compliance with the conditions of the license.

(B) Within 15 days of the date of submission of the letter in subparagraph (A) of this paragraph, the licensee has not received notice from the director of his or her intent to inspect, prior inspection is waived, and the licensee may commence treatment, storage, or disposal of hazardous waste.

(iii) The licensee shall obtain the approval of the director by a modification to the license before transferring ownership or operation of the facility to another person. The new owner or operator shall not accept hazardous waste at the facility until the license modification has been issued by the director.

(c) Other conditions determined to be necessary by the director to clarify procedures for license issuance, reissuance, modification, and revocation under act 306.

(2) In addition to conditions required in all licenses, the director shall establish conditions on a case-by-case basis for all of the following:

(a) Compliance schedules, if applicable, consistent with the provisions of 40 C.F.R. §270.33.

(b) Requirements for recording and reporting monitoring results, as specified in the provisions of 40 C.F.R. §270.31 and part 6 of these rules.

(c) Duration of the permit or license under R 299.9516.

(d) Allowable waste types.

(3) Each construction permit and operating license under part 111 of the act shall include conditions necessary to do the following:

(a) Achieve compliance with part 111 of the act and these rules, including each of the applicable requirements of parts 6 and 8 of these rules. In satisfying this provision, the director shall incorporate applicable requirements of part 6 directly into the permit or license or establish other conditions that are based on these requirements. For the purpose of this paragraph, an applicable requirement is a statutory or regulatory requirement which takes effect before final administrative disposition of a permit or license or any requirement which takes effect before the modification of a permit or license under R 299.9519.

(b) Protect human health and the environment.

(c) If, as a result of an assessment or other information, the director determines that conditions are necessary in addition to those required under 40 C.F.R. part 63, subpart EEE, or the applicable requirements of parts 6 and 8 of these rules to ensure protection of human health and the environment, the director shall include those terms and conditions in the construction permit and operating license for a hazardous waste combustion unit.

(4) New, reissued, and, to the extent allowed under R 299.9519, modified permits or licenses shall incorporate each of the applicable requirements referenced in this rule.

(5) A condition of a construction permit or operating license shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements shall be given in the permit or license.

(6) The provisions of 40 C.F.R. part 63, subpart EEE, §270.30, except

§270.30(1)(1) and (8), §270.31, and §270.33 are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1996 AACS; 2008 AACS.

R 299.9522 Transfer of ownership or operation.

Rule 522. (1) A permit or license may be transferred by the permittee or licensee to a new owner or operator only if the permit or license has been modified pursuant to the provisions of R 299.9519(3) or a minor modification made pursuant to the provisions of R 299.9519(5) to identify the new licensee or permittee and incorporate such other requirements as may be necessary pursuant to the provisions of part 111 of the act and these rules.

(2) Changes in the ownership or operational control of a facility which is authorized to operate pursuant to the provisions of part 111 of the act or these rules but which has not been issued an operating license pursuant to the provisions of part 111 of the act or these rules may be made if the new owner or operator submits a revised part a permit application not later than 90 days before the scheduled change. When a transfer of ownership or operational control of a facility occurs, the old owner or operator shall comply with the financial requirements of part 7 of these rules until the new owner or operator has demonstrated to the director that he or she is complying with the requirements of part 7 of these rules. The new owner or operator shall demonstrate compliance with the provisions of part 7 of these rules within 6 months of the date of the change in the ownership or operational control of the facility. Upon the new owner or operator demonstrating, to the director, compliance with the provisions of part 7 of these rules, the director, or his or her designee, shall notify the old owner or operator, in writing, that he or she no longer needs to comply with these requirements as of the date of the demonstration. All other interim status duties are transferred effective immediately upon the date of the change of ownership or operational control of the facility.

(3) The new owner or operator shall comply with all of the requirements of part 111 of the act and these rules and with the stipulations of previous operating licenses, construction permits, or other agreements entered into by the previous owner or operator and the director.

(4) The responsibility for remedial measures to correct any environmental problem resulting from previous operations at the facility shall be assumed by the new owner or operator. This requirement shall be incorporated into the operating license for the new owner or operator.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1998 AACS.

R 299.9523 Permit fee schedule.

Rule 523. Table 501 reads as follows:

Table 501
Permit Fee Schedule

Item			
(1) Type of Facility	Landfill, surface, impoundment, land treatment, or waste pile	\$ 9,000.00	
	Incinerator or other treatment	7,200.00	
	Storage**	500.00	
Item			
	Landfills, surface impoundments, land treatment, and waste piles*	Other treatment and Storage	
(2) Site size	(a) Less than 5 acres	\$ 100.00	\$ 50.00
	(b) 5 to 19 acres	170.00	100.00
	(c) 20 to 79 acres	240.00	100.00
	(d) 80 acres or more	320.00	100.00
(3) Projected waste volume per day	(a) Less than 50 cubic yards or 10,000 gallons.	60.00	50.00
	(b) 50 to 100 cubic yards or 10,000 to 20,000 gallons.	80.00	100.00
	(c) 101 to 700 cubic yards or 20,000 to 140,000 gallons.	100.00	100.00
	(d) more than 700 cubic yards or more than 140,000 gallons	130.00	150.00
(4) Hydrogeological characteristics	(a) Natural clay	40.00	—
	(b) Natural sand	60.00	—
	(c) Compacted clay	70.00	—
	(d) Artificially lined (other materials)	100.00	—
	(e) Any combination of above	100.00	—
	(f) Surface water on site	—	75.00

* Except waste piles meeting the requirements of 40 C.F.R. §264.250(c).

** Storage associated with treatment or disposal activities which may be regulated under a single permit are not subject to this fee.

History: 1985 AACS; 1988 AACS.

R 299.9524 Remedial action plans.

Rule 524. (1) The requirements of this rule apply to remedial action plans and owners or operators seeking remedial action plans to authorize the treatment, storage, or disposal of hazardous remediation waste at a remediation waste management site.

(2) A remedial action plan shall only be issued for the area of contamination where the remediation wastes to be managed under the plan originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under 40 C.F.R. §270.230.

(3) The requirements of part 5 of these rules do not apply to remedial action plans, with the exception of R 299.9516, unless otherwise specified in this rule.

(4) Notwithstanding any other provision of part 5 of these rules or this rule, any document that meets the requirements of this rule, constitutes a construction permit or operating license under part 111 of the act.

(5) A remedial action plan may include either of the following:

(a) A stand-alone document that includes only the information and conditions required in this rule.

(b) A part or parts of another document that includes information or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by this rule.

(6) The treatment, storage, or disposal of hazardous remediation wastes under a remedial action plan as part of a cleanup compelled by federal or state cleanup authorities does not affect obligations that exist under such authorities in any way.

(7) The issuance of a remedial action plan to the owner or operator of a facility operating under interim status does not terminate the interim status of the facility.

(8) Treatment units that involve the combustion of hazardous remediation wastes at remediation waste management sites are not eligible for remedial action plans under this rule.

(9) An owner or operator of a facility already permitted or licensed under these rules may obtain approval of a remedial action plan for managing hazardous remediation waste at the facility by modifying the existing permit or license in accordance with the requirements of R 299.9519 and R 299.9520, except the requirements of R 299.9519(6)(a)(v) and (10)(d), thereby making the remedial action plan part of the permit or license. Requests to modify the permit or license shall include the information specified in 40 C.F.R. §270.110. Once incorporated into the permit or license, the remedial action plan is subject to the requirements for permit or license modification, revocation, reissuance, termination, and duration and effect provisions of part 5 of these rules.

(10) Owners or operators seeking a remedial action plan and owners or operators with existing remedial action plans shall comply with the requirements of this rule and 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, and 270.195.

(11) Final decisions on remedial action plan applications and remedial action plans shall be subject to the appeal processes for operating licenses which are established under the act and act 306.

(12) A remedial action plan shall become effective 30 days after the director notifies the owner or operator and all persons which provided comments on the draft plan that the plan is approved, except under any of the following conditions:

- (a) The director specifies a later effective date as part of the final decision.
- (b) The owner or operator or another person has appealed the remedial action plan.
- (c) No persons requested a change in the draft remedial action plan, in which case the plan becomes effective immediately when it is issued.

(13) Remedial action plans shall be issued for a fixed term, not to exceed 10 years, although the plans may be renewed upon approval by the director in fixed increments of not more than 10 years. Each remedial action plan for hazardous waste land disposal shall be reviewed by the director 5 years after the date of issuance or reissuance and shall be modified as necessary to ensure that the owner or operator is in compliance with the requirements of part 111 of the act and these rules.

(14) The provisions of 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, and 270.195 are adopted by reference in R 299.11003. For the purposes of this adoption the words "part 5 of these rules" shall replace the words "§§270.3 through 270.66," the words "parts 6 and 8 of these rules" shall replace the words "part 264 and 266," the words "this act and act 306" shall replace the words "§270.155," the words "R 299.9519 and R 299.9520" shall replace the words "§§270.40 through 270.43," "§§270.41 and 270.43," and "§270.43," The words "these rules" shall replace the words "parts 124, 260 through 266 and 270 of this chapter," the words "part 7 of these rules" shall replace the words "part 264, subpart H, of this chapter," the word "R 299.9511" shall replace the words "§§124.31, 124.32, and 124.33 of this chapter," and the word "R 299.9629" shall replace the word "§264.101."

History: 2000 AACCS.

R 299.9525 Notice requirements.

Rule 525. (1) An owner of a hazardous waste treatment, storage, or disposal facility shall execute and file a notice with the office of the register of deeds in the county in which the facility is located. The owner shall submit verification of the execution, filing, and recording of the notice to the department within 60 days of the effective date of this rule. The notice shall be titled "notice regarding statutory obligations applicable to property" and shall comply with all of the following requirements:

(a) The notice shall include a legal description of the land upon which the facility is located. The land and the facility shall be referred to as "the property."

(b) The notice shall state that the property has been used to manage hazardous waste and is subject to the corrective action requirements of part 111 of the act and RCRA, as amended by the 1984 hazardous and solid waste amendments.

(c) The form of the notice shall comply with the requirements of act 103 of the public acts of 1937, as amended, being §565.201 et seq. of the Michigan Compiled Laws.

(2) Owners or operators shall provide new owners or operators with a copy of the notice required pursuant to the provisions of subrule (1) of this rule.

(3) New owners or operators shall provide notice to the director of the transfer of ownership or operational control of a facility. The notification shall be provided to the director not later than 90 days before the scheduled change in ownership or operational control.

- (4) The requirements of subrules (1) to (3) of this rule apply to both of the following:
- (a) Owners or operators of hazardous waste treatment, storage, or disposal facilities which have been issued an operating license under part 111 of the act.
 - (b) Owners or operators of hazardous waste treatment, storage, or disposal facilities which have not yet been issued an operating license under part 111 of the act.

History: 2000 AACs.

PART 6. OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

R 299.9601 Applicability; relationship to interim status standards.

Rule 601. (1) The standards in this part apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste, except as otherwise specifically provided in these rules.

(2) Treatment, storage, or disposal facilities which are authorized to operate pursuant to these rules and which have not been issued or reissued an operating license after the effective date of these rules shall be in compliance with all of the following rules:

- (a) R 299.9602 Environmental and human health standards generally.
- (b) R 299.9607 Contingency plan and emergency procedures.
- (c) R 299.9608 Use of manifest system.
- (d) R 299.9609 Operating record; retention and disposition of records.
- (e) R 299.9610 Reporting.
- (f) R 299.9613(2) to (6) Closure and postclosure.
- (g) R 299.9614 Use and management of containers.
- (h) R 299.9615 Tank systems.
- (i) R 299.9623 Incinerators.
- (j) R 299.9627 Land disposal restrictions.
- (k) R 299.9629 Corrective action.
- (l) R 299.9635 Corrective action management unit requirements.
- (m) R 299.9636 Temporary unit requirements.
- (n) R 299.9637 Hazardous waste munitions and explosives storage.
- (o) R 299.9638 Staging pile requirements.
- (p) R 299.9639 Disposal of corrective action management unit-eligible waste in hazardous wastes landfills.

(3) In addition to the requirements specified in subrule (2) of this rule, the following persons shall comply with the interim status standards of 40 C.F.R. part 265, except subparts D, E, H, I, J, O, and DD, and 40 C.F.R. §§265.112(d)(1), 265.115, and 265.120:

- (a) An owner or operator of an existing facility that treats, stores, or disposes of hazardous waste who has fully complied with the requirements for interim status pursuant to section 3005(e) of RCRA and 40 C.F.R. §270.10, until final administrative disposition of the owner's or operator's permit application pursuant to RCRA or until an operating license is issued or reissued to the owner or operator after the effective date of these rules.

(b) An owner or operator of a facility that is in existence on November 19, 1980, or that is in existence on the effective date of amendments to part 111 of the act or these rules that render it subject to the licensing requirements of part 111 of the act, who has failed to provide timely notification as required by section 3010(a) of RCRA or failed to file part A of the permit application as required pursuant to 40 C.F.R. §270.10(e) and (g).

(4) The requirements of this part apply to a person who disposes of hazardous waste by means of underground injection subject to a permit issued pursuant to an underground injection control program approved or promulgated under the federal safe drinking water act only to the extent that these requirements are included in R 299.9503(3)(a).

(5) The requirements of this part apply to the owner or operator of a publicly owned treatment works that treats, stores, or disposes of hazardous waste only to the extent that these requirements are included in R 299.9503(3)(b).

(6) The standards in this part do not apply to those persons who are listed in R 299.9503(1) and (2), except as otherwise specified by those subrules.

(7) Except as noted in this subrule, part 6 of the rules does not apply to owners and operators of hazardous waste incinerator facilities identified in subrule (2) of this rule if the owner or operator demonstrates compliance with the maximum achievable control technology standards of 40 C.F.R. part 63, subpart EEE by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(b) which documents compliance with the requirements of 40 C.F.R. part 63, subpart EEE. The maximum achievable control technology standards of 40 C.F.R. part 63, subpart EEE do not supersede the requirements of R 299.9608 to R 299.9610 and part 7 of these rules, and 40 C.F.R. part 265, subparts A to D, F, G, BB, and CC.

(8) Notwithstanding any other provisions of these rules, enforcement actions may be brought pursuant to section 48 of part 111 of the act.

(9) The provisions of 40 C.F.R. §270.10 and 40 C.F.R. part 265, except subparts E, H, O, and DD, and 40 C.F.R. §§265.112(d)(1), 265.115, and 265.120, are adopted by reference in R 299.11003. Where provisions of 40 C.F.R. parts 264, 265, and 270 are referenced in this part, the word "director" shall replace the term "regional administrator" and the words "operating license" shall replace the word "permit." For the purposes of this adoption, the word "R 299.9629" shall replace the word "40 C.F.R. §264.101(a)," the words "part 5 of these rules" shall replace the word "40 C.F.R. §270.1(c)(7)," and the words "R 299.9703(8) and R 299.9710(17)" shall replace the word "40 C.F.R. §265.140(d)," and the words "R 299.9612 and R 299.9629" shall replace the words "40 C.F.R. §§264.91 through 264.100."

History: 1985 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2000 AACS; 2004 AACS.

R 299.9602 Environmental and human health standards generally.

Rule 602. (1) All treatment, storage, and disposal facilities shall be located, designed, constructed, and operated in a manner that will prevent all of the following:

- (a) Violations of the federal clean water act or part 31 of the act.
 - (b) Air emissions in violation of the federal clean air act or part 55 of the act.
 - (c) Degradation, as defined by part 31 of the act, of a sole-source aquifer.
 - (d) Exposure of humans or the environment to harmful quantities of hazardous waste or hazardous waste constituents.
 - (e) Pollution, impairment, or destruction of the natural resources of the state.
- (2) The owner or operator of a treatment, storage, or disposal facility which discharges to surface water or groundwater, including discharges from leachate collection systems or surface water runoff collection systems, shall comply with the federal clean water act and part 31 of the act. Additionally, owners or operators of a treatment, storage, or disposal facility which discharges, other than sanitary sewage, to municipal sewerage systems shall meet the applicable pretreatment standards for these facilities.

History: 1985 AACS; 1998 AACS.

R 299.9603 Location standards.

Rule 603. (1) Active portions of new treatment, storage, or disposal facilities or expansions, enlargements, or alterations of existing facilities shall not be located in any of the following areas:

- (a) Within 61 meters of a fault which had its displacement in Holocene time.
 - (b) In a floodway designated by the department under part 31 of the act.
 - (c) In a coastal high-risk area designated under part 323 of the act.
 - (d) Over a sole-source aquifer or the recharge zone of a sole-source aquifer, unless the director grants an exemption to this provision based upon a demonstration by the applicant that the treatment, storage, or disposal facility will be located, designed, constructed, and operated in a manner that will prevent contamination of the aquifer.
 - (e) Within that isolation distance from public water supplies specified by act 399.
 - (f) In a wetland.
- (2) Unless otherwise allowed by a construction permit or operating license under part 111 of the act or subrule (3) of this rule, the following isolation distances shall be maintained between the active portion of a new facility and adjacent commercial, residential, or recreational property lines:
- (a) For landfills, 150 meters.
 - (b) For other facilities, 60 meters.
- (3) For purposes of subrule (2) of this rule, adjacent commercial, residential, and designated recreational property shall not include public roads, railroads, or rights-of-way. However, the director may require greater isolation distances than those specified in subrule (2) of this rule, or allow lesser isolation distances, based on the following criteria:
- (a) The proposed design and operation of the facility.
 - (b) The location of private water wells.
 - (c) The potential for fugitive emissions in violation of part 55 of the act.

(4) Treatment, storage, and disposal facilities shall not be located in a floodplain. The director may grant an exemption to the floodplain restrictions of this rule for treatment and storage facilities if either of the following conditions is met:

(a) The facility is designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a flood.

(b) The owner or operator can demonstrate to the director that procedures are in effect which will cause the waste to be removed safely, before floodwaters can reach the facility, to a location where the wastes will not be vulnerable to the floodwaters.

(5) Landfills, surface impoundments, and waste piles shall only be located in areas where there is not less than 6 meters of soil with a maximum permeability of 1.0×10^{-6} cm/sec at all points below and lateral to the liner or bottom of the landfill, surface impoundment, or waste pile, unless the owner or operator substitutes an engineered backup liner of equivalent design and demonstrates to the director that it provides equivalent environmental protection.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9604 Facility design and operating standards.

Rule 604. (1) The owner or operator of a treatment, storage, or disposal facility shall design, construct, operate, and maintain all of the following:

(a) A run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 24-hour, 25-year storm.

(b) A runoff management system to collect and control at least the water volume resulting from active portions of the facility from a 24-hour, 100-year storm.

(c) Systems to prevent hazardous waste or hazardous waste constituents from escaping into the soil, directly or indirectly into surface water or groundwaters, or uncontrolled into drains or sewers.

(2) The director shall grant an exemption from the provisions of subrule (1)(a) and (b) of this rule for facilities other than landfills, surface impoundments, waste piles, and land treatment which are physically in existence at the time of initial licensing or permitting under part 111 of the act.

History: 1985 AACS; 1988 AACS; 1998 AACS.

R 299.9605 General requirements for owners and operators.

Rule 605. (1) The owner or operator of a hazardous waste treatment, storage, or disposal facility shall comply with all of the requirements of 40 C.F.R. part 264, subpart B, except §264.15(b)(5), unless otherwise specified in this rule. In addition to the notice requirements of 40 C.F.R. §264.12, the owner or operator shall, before transferring ownership or operation of a facility during its operating life or during any required postclosure care period, notify the new owner or operator, in writing, of the requirements of this part and part 5 of these rules.

(2) Hazardous waste transport vehicles and other containers leaving a designated facility shall be empty of hazardous waste in accordance with the provisions of R

299.9207 or accompanied by a manifest that is prepared in accordance with the provisions of these rules. The owner or operator shall develop and implement a procedure for insuring compliance with this subrule. If a transport vehicle or other container is not empty, then the owner or operator shall either take all steps required in the procedure to insure that the provisions of R 299.9207 are complied with or insure that the hazardous waste that remains in the vehicle or containers is accompanied by a manifest that is prepared in accordance with the provisions of these rules when leaving the designated facility.

(3) The requirements of 40 C.F.R. part 264, subpart B do not apply to remediation waste management sites, other than those sites which are located at facilities that are subject to the permitting or licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes, provided that the owners or operators of the remediation waste management sites comply with the requirements of 40 C.F.R. §264.1(j)(1) to (13).

(4) The provisions of 40 C.F.R. part 264, subpart B, except §264.15(b)(5), and §264.1(j)(1) to (13) are adopted by reference in R 299.11003. For the purposes of this adoption, the words "regional administrator" shall be replaced by the word "director" and the word "§264.101" shall be replaced by the word "R 299.9629."

History: 1985 AACS; 1994 AACS; 2000 AACS; 2008 AACS.

R 299.9606 Preparedness and prevention.

Rule 606. (1) Owners or operators of hazardous waste treatment, storage, and disposal facilities shall comply with the provisions of 40 C.F.R. part 264, subpart C, regarding preparedness and prevention unless otherwise specified in this rule.

(2) The requirements of 40 C.F.R. part 264, subpart C do not apply to remediation waste management sites, other than those sites which are located at facilities that are subject to the permitting or licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes, provided that the owners or operators of the remediation waste management sites comply with the requirements of 40 C.F.R. §264.1(j)(1) to (13).

(3) The provisions of 40 C.F.R. part 264, subpart C, and §264.1(j)(1) to (13) are adopted by reference in R 299.11003. For the purposes of this adoption, the word "§264.101" shall be replaced by the word "R 299.9629."

History: 1985 AACS; 2000 AACS.

R 299.9607 Contingency plan and emergency procedures.

Rule 607. (1) Owners or operators of hazardous waste treatment, storage, and disposal facilities shall maintain a contingency plan for the facility and comply with 40 C.F.R. part 264, subpart D, regarding the plan and emergency procedures, unless otherwise specified in this rule.

(2) If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the owner or operator has knowledge that a spill has reached surface water or groundwater, then the owner or operator shall immediately notify the department's pollution emergency alerting system - telephone number 800-292-4706. The notification shall include all of the following information:

- (a) The name and telephone number of the person who is reporting the incident.
- (b) The name, address, telephone number, and site identification number of the facility.
- (c) The name, address, and telephone number of the owner or operator.
- (d) The date, time, and type of incident.
- (e) The name and quantity of the material or materials involved and released.
- (f) The extent of injuries, if any.
- (g) The estimated quantity and disposition of recovered material that resulted from the incident, if any.
- (h) An assessment of actual or potential hazards to human health or the environment.
- (i) The immediate response action taken.

(3) The requirements of 40 C.F.R. part 264, subpart D do not apply to remediation waste management sites, other than those sites which are located at facilities that are subject to the permitting or licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes, provided that the owners or operators of the remediation waste management sites comply with 40 C.F.R. §264.1(j)(1) to (13).

(4) The provisions of 40 C.F.R. part 264, subpart D, and §264.1(j)(1) to (13) are adopted by reference in R 299.11003. For the purposes of the adoption by reference of 40 C.F.R. §264.52(b), the words "construction permit or operating license" shall replace the words "RCRA permit." For the purposes of the adoption of 40 C.F.R. §264.56(j) and §264.1(j)(1) to (13), the word "director" shall replace the words "regional administrator" and the word "R 299.9629" shall replace the word "§264.101," respectively.

History: 1985 AACS; 1994 AACS; 2000 AACS; 2004 AACS; 2008 MR 5, Eff. Mar. 17, 2008.

R 299.9608 Use of manifest system.

Rule 608. (1) If a facility receives hazardous waste accompanied by a manifest, then the owner or operator, or his or her agent, shall comply with 40 C.F.R. §264.71(a) and return a legible copy of the manifest to the director or his or her designee within a period of 10 days after the end of the month in which the waste was received. If the generator state and the destination state are the same, the owner or operator, or his or her agent, shall only submit 1 copy of the manifest to the director or his or her designee.

(2) If a facility receives a bulk shipment of hazardous waste from a rail or water transporter which is accompanied by a shipping paper containing all the information

required on the manifest, excluding the site identification numbers, generator's certification, and signatures, then the owner or operator, or the owner or operator's agent, shall comply with 40 C.F.R. §264.71(b) and return a legible copy of the manifest to the director or his or her designee within a period of 10 days after the end of the month in which the waste was received. If the generator state and the destination state are the same, the owner or operator, or his or her agent, shall only submit 1 copy of the manifest to the director or his or her designee.

(3) If a shipment of hazardous waste is initiated from a facility, then the owner or operator of that facility shall comply with the requirements of part 3 of these rules.

(4) Within 3 working days of the receipt of a shipment subject to R 299.9312, the owner or operator shall provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, and Targeting and Data Division (2222A), U.S. Environmental Protection Agency, 401 M Street, SW, Washington DC 20460, and to competent authorities of all other concerned countries. The owner or operator shall maintain the original copy of the tracking document at the facility for not less than 3 years from the date of signature.

(5) The owner or operator shall determine if the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. The owner or operator shall also determine if the consignment state or the generator state requires the owner or operator to submit any copies of the manifests to these states.

(6) Upon discovering a significant manifest discrepancy, as defined in 40 C.F.R. §264.72(a) and (b), the owner or operator shall comply with 40 C.F.R. §264.72(c) to (g) and distribute copies of the manifest pursuant to subrules (1) and (2) of this rule.

(7) The requirements of this rule do not apply to owners or operators of off-site facilities with respect to waste military munitions exempted from manifesting requirements under R 299.9818.

(8) The provisions of 40 C.F.R. §§264.71(a) and (b) and 264.72 are adopted by reference in R 299.11003. For the purposes of these adoptions, the word "director" shall replace the words "regional administrator," the words "site identification number" shall replace the words "EPA identification number," the term "R 299.9207" shall replace the term "40 CFR 261.7(b)," and the term "R 299.9304(1)(a)" shall replace the term "40 CFR 262.20(a)."

History: 1985 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9609 Operating record; availability, retention and disposition of records.

Rule 609. (1) An owner or operator shall keep a written operating record at his or her facility, or in an alternate location approved by the director or the director's designee. The following information shall be recorded as it becomes available and shall be maintained in the operating record until closure of the facility:

(a) The information required by the provisions of 40 C.F.R. §264.73 and 40 C.F.R. part 264, appendix I.

(b) Any other records required to be kept in the operating record by a construction permit or operating license.

(2) All records, including plans, required under this part shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is duly designated by the director.

(3) The retention period for all records required under this part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the director or administrator.

(4) A copy of records of waste disposal locations and quantities under subrule (1) of this rule shall be submitted to the director, or his or her designee, the regional administrator, and local land authority upon closure of the facility.

(5) The provisions of 40 C.F.R. §264.73 and part 264, appendix I, are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1991 AACS; 2008 AACS.

R 299.9610 Reporting.

Rule 610. (1) The owner or operator shall provide to the director or the director's designee the data necessary for the department to prepare and submit Michigan's hazardous waste report as required to the EPA. The owner or operator shall submit the data on a form and in a format specified by the director or the director's designee. The data shall be acquired from manifests as required in Parts 3 and 6 of the rules, the monthly operating reports required in subrule (3) of this rule, and other reporting mechanisms used by the director to obtain the information specified in 40 C.F.R. §264.75(a) to (j) and by the EPA as part of a federal information collection request published in conjunction with 40 C.F.R. §264.75(a) to (j).

(2) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest or without an accompanying shipping paper as described in 40 C.F.R. §263.20(e), and if the waste is not excluded from the manifest requirement by R 299.9205, then the owner or operator shall prepare and submit a single copy of a report to the director or his or her designee within 15 days after receiving the waste. The unmanifested waste report shall be submitted on a form approved by the director. The report shall be designated "Unmanifested Waste Report" and shall include all of the following information:

(a) The site identification number, name, and address of the facility.

(b) The date the facility received the waste.

(c) The site identification number, name, and address of the generator and the transporter, if available.

(d) A description and the quantity of each unmanifested hazardous waste and facility received.

(e) The method of treatment, storage, or disposal for each hazardous waste.

(f) The certification signed by the owner or operator of the facility or the owner or operator's authorized representative.

(g) A brief explanation of why the waste was unmanifested, if known.

(3) The owner or operator of a hazardous waste treatment or disposal facility on the site of generation shall submit a monthly report to the director or his or her designee, on forms provided by the director, which summarizes all managed hazardous wastes treated or disposed of, including the hazardous waste number of the wastes, quantity, method of treatment or disposal, and dates of treatment or disposal. The report shall be submitted to the director within 10 days after the end of each month.

(4) All reports shall be signed and certified pursuant to 40 C.F.R. §270.11, which is adopted by reference in R 299.11003.

(5) The provisions of 40 C.F.R. §263.20(3) are adopted by reference in R 299.11003.

History: 1985 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9611 Environmental monitoring.

Rule 611. (1) An owner or operator of a hazardous waste treatment, storage, or disposal facility shall develop an environmental monitoring program that is capable of detecting a release of hazardous waste or hazardous waste constituents from the facility.

(2) An owner or operator shall do all of the following as part of the environmental monitoring program:

(a) Prepare a sampling and analysis plan for each environmental monitoring program that includes all of the following information:

(i) A sampling location map.

(ii) A sampling schedule.

(iii) The parameters to be analyzed.

(iv) The sampling equipment, well purging, and sample collection procedures.

(v) The field measured parameters.

(vi) The sampling preservation and handling techniques.

(vii) The sampling analytical protocols.

(viii) The field and laboratory quality assurance and quality control procedures.

(ix) The chain of custody procedures.

(x) The decontamination procedures.

(xi) The data analysis, including the statistical method used.

(b) Conduct a groundwater monitoring program that is in compliance with the requirements of R 299.9612, except as indicated in subrule (3) of this rule.

(c) Conduct an ambient air monitoring program approved by the director or his or her designee to detect violations of the provisions of part 55 of the act.

(d) Conduct an annual soil monitoring program in areas subject to spills, such as loading and unloading areas, to detect hazardous wastes or hazardous waste constituents.

(3) The director shall waive the groundwater monitoring requirements of R 299.9612 if either of the following conditions is met:

(a) The facility is not a land disposal facility and the owner or operator complies with 1 of the following provisions:

(i) All treatment, storage, and waste handling activities take place inside or under a structure that provides protection from precipitation and runoff and the facility is in compliance with the provisions of R 299.9604.

(ii) The owner or operator demonstrates, to the director's satisfaction, that monitoring is not required.

(iii) The owner or operator demonstrates, to the director's satisfaction, that a lesser degree of monitoring, or that alternate information regarding monitoring activities conducted in conjunction with response activity in the area of the hazardous waste management unit or units, can be utilized to demonstrate compliance with the provisions of part 111 of the act and these rules.

(b) The director finds that there is no potential for migration of liquid from the facility to the uppermost aquifer during the active life of the facility and the post-closure care period specified pursuant to the provisions of 40 C.F.R. §264.117, which is adopted by reference in R 299.11003. The demonstration shall be certified by a qualified geologist or geotechnical engineer. To provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator shall base any predictions made pursuant to this subdivision on assumptions that maximize the rate of liquid migration.

(4) The director shall waive the requirements of subrule (2)(c) and (d) of this rule if the owner or operator demonstrates that monitoring is not required or that a lesser degree of monitoring can be utilized to demonstrate compliance with the provisions of part 111 of the act and these rules.

(5) The director shall require more intensive or extensive monitoring programs if needed to demonstrate compliance with the provisions of part 111 of the act or these rules.

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS.

R 299.9612 Groundwater monitoring.

Rule 612. (1) Owners or operators of facilities that treat, store, or dispose of hazardous waste shall comply with the requirements of R 299.9629 and 40 C.F.R. part 264, subpart F, excluding the provisions of §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101 and except as follows:

(a) The director may, in the facility operating license, extend the point of compliance into groundwaters other than the uppermost aquifer.

(b) In addition to wells required by the provisions of 40 C.F.R. part 264, subpart F, the owner or operator shall install wells at appropriate locations and depths to yield groundwater from any saturated zone other than the uppermost aquifer when such sampling will provide an earlier warning of failure from a hazardous waste management unit. All wells installed to monitor or evaluate groundwater shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-90 and D5299-92, or a plan approved by the director.

(c) The director may require sampling and analysis for secondary monitoring parameters at frequencies specified in the facility operating license. If the owner or

operator determines that there is a statistically significant increase in 1 or more secondary monitoring parameters, then he or she shall do all of the following:

(i) Notify the director or his or her designee of the finding immediately.

(ii) Sample for both primary and secondary monitoring parameters, taking not less than 4 replicate measurements on each sample at each well.

(iii) Redetermine if a statistically significant increase has occurred in either primary or secondary monitoring parameters and immediately notify the director or his or her designee of the results.

(d) The concentration limit of a hazardous constituent established pursuant to the provisions of 40 C.F.R. -264.94(a) shall not exceed the background level of that constituent in groundwater, unless a concentration limit which is not less stringent than that allowed pursuant to the provisions of RCRA has been established pursuant to the provisions of part 31 of the act or part 201 of the act.

(e) To determine whether background values or concentration limits have been exceeded pursuant to the provisions of 40 C.F.R. §264.97(h), the owner or operator shall use a statistical test approved by the director in the facility operating license and shall determine if the difference between the mean of the constituent at each well, using all replicates taken, and either of the following is significant:

(i) The background value of the constituent as defined in the operating license.

(ii) The mean value of 1 year's initial sampling for the well itself where the 1-year period is specified by the director in the facility operating license.

(f) The director may require compliance monitoring and corrective action pursuant to the provisions of 40 C.F.R. -264.99, R 299.9629, part 31 of the act, and part 201 of the act to be conducted pursuant to a consent agreement or other legally binding agreement rather than pursuant to an operating license.

(g) Nothing in the provisions of 40 C.F.R. part 264, subpart F, or this rule shall restrict the director from taking action pursuant to the provisions of section 48 or 51 of part 111 of the act.

(h) The owner or operator has been granted a waiver by the director pursuant to the provisions of R 299.9611(3).

(2) The provisions of 40 C.F.R. part 264, subpart F and 40 C.F.R. part 264, appendix IX, excluding the provisions of §§264.94(a)(2) and (3), 264.94(b) and (c), 264.100, and 264.101, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the term "regional administrator" or "administrator," the word "department" shall replace the word "agency," the words "part 1 of these rules" shall replace the word "40 C.F.R. §270.1(c)(7)," the words "R 299.9612 and R 299.9629" shall replace the words "40 C.F.R. §§264.91 through 264.100," and the words "construction permit or operating license" shall replace the word "permit."

History: 1985 AACS; 1988 AACS; 1991 AACS; 1994 AACS; 1998 AACS; 2000 AACS; 2008 AACS.

R 299.9613 Closure and postclosure.

Rule 613. (1) The owner or operator of a hazardous waste treatment, storage, or disposal facility shall comply with the closure and postclosure provisions of 40 C.F.R. part 264, subpart G, except 40 C.F.R. §§264.112(d)(1), 264.115, and 264.120.

(2) The owner or operator shall notify the director, in writing, not less than 60 days before the date on which the owner or operator expects to begin partial or final closure of any or all hazardous waste management units at the treatment, storage, or disposal facility. A copy of the current or updated partial or final closure plan for the hazardous waste management unit or units that are being closed shall accompany the notification.

(3) Within 60 days of completion of closure of each hazardous waste management unit at a facility, and within 60 days of the completion of final closure, the owner or operator shall submit, to the director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification shall be signed by the owner or operator and by an independent registered professional engineer and shall include all of the following supporting documentation:

- (a) The results of all sampling and analysis.
- (b) Sampling and analysis procedures.
- (c) A map showing the location where samples were obtained.
- (d) Any statistical evaluations of sampling data.
- (e) A summary of waste types and quantities removed from the site and the destination of these wastes.
- (f) If soil has been excavated, the final depth and elevation of the excavation and a description of the fill material used.

(4) Any documentation not listed in subrule (3) of this rule that supports the independent registered professional engineer's certification shall be furnished to the director upon request until the director releases the owner or operator from the financial assurance requirements for closure pursuant to the provisions of R 299.9703.

(5) Not later than 60 days after completion of the established postclosure care period for each hazardous waste disposal unit, the owner or operator shall submit, to the director, by registered mail, a certification that the postclosure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved postclosure plan. The certification shall be signed by the owner or operator and an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification shall be furnished to the director upon request until the director releases the owner or operator from the financial requirements for postclosure pursuant to the provisions of R 299.9703.

(6) The environmental protection standards established pursuant to the provisions of part 201 of the act shall be used to perform closure and postclosure of a facility under part 111 of the act if the limits are not less stringent than those allowed pursuant to the provisions of RCRA.

(7) The provisions of 40 C.F.R. part 264, subpart G, except 40 C.F.R. §§264.112(d)(1), 264.115, and 264.120, are adopted by reference in R

299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and the words "R 299.9703(8) and R 299.9710(17)" shall replace the word "40 C.F.R. §264.140(d).

History: 1985 AACS; 1988 AACS; 1994 AACS; 2000 AACS; 2008 MR 5, Eff. Mar. 17, 2008.

R 299.9614 Use and management of containers.

Rule 614. (1) Owners or operators of all hazardous waste facilities that store containers of hazardous waste shall do both of the following:

(a) Comply with all requirements of 40 C.F.R. part 264, subpart I. If the owner or operator is unable to comply with 40 C.F.R. §264.176 or the authority having jurisdiction determines that an alternative to the requirements of 40 C.F.R. §264.176 is more protective of human health and the environment, then compliance with 40 C.F.R. §264.176 is considered achieved by meeting the requirements of the fire prevention code and its rules. A copy of an approval letter indicating that the containers are stored in compliance with the fire prevention code and signed by the authority having jurisdiction shall be maintained at the facility.

(b) Ensure that each container is labeled or marked clearly with the words "Hazardous Waste" and the hazardous waste number.

(2) The provisions of 40 C.F.R. part 264, subpart I, are adopted by reference in R 299.11003.

History: 1985 AACS; 2004 AACS.

R 299.9615 Tank systems.

Rule 615. (1) Owners or operators who use tank systems to treat or store hazardous waste shall comply with all of the requirements of 40 C.F.R. part 264, subpart J, except as provided in subrule (4) of this rule.

(2) Owners or operators of tank systems that are not in compliance with the containment requirements of 40 C.F.R. §264.193(b) to (f) shall do all of the following until either the tank system is brought into compliance with the standards of 40 C.F.R. §264.193(a) or until a variance is obtained as provided by 40 C.F.R. §264.193(h):

(a) Ensure that aboveground tank systems that are used for the treatment or storage of liquid hazardous wastes, or hazardous wastes which could generate free liquids during storage, are located in areas which are paved, diked, curbed, or otherwise structurally enclosed so as to be able to contain not less than 100% of the largest tank system within the enclosed area. Where the hazardous wastes that are stored are incompatible with the materials of construction of tank systems within the enclosed area, or where the tank systems are interconnected so that a loss from one tank system may lead to losses in other tank systems, the owner or operator shall insure that all tank systems are structurally enclosed so as to be able to contain not less than 100% of the liquid portion of the material being stored in all tank systems.

(b) For underground tank systems that are used for the treatment or storage of liquid hazardous wastes, or hazardous wastes that could generate free liquids, do all of the following:

(i) Provide adequate secondary containment and a leachate collection and withdrawal system to contain any release of hazardous wastes or hazardous waste constituents from the tank system.

(ii) Conduct a complete inventory of hazardous wastes in the tank system not less than twice a month.

(iii) Conduct leachate sampling and analysis at least once a year. If the inventories required pursuant to paragraph (ii) of this subdivision indicate a loss of waste, leachate sampling and analysis shall be performed within 24 hours of the discovery of the loss.

(3) All tank systems which are put into service after July 14, 1989, or which are upgraded pursuant to the provisions of 40 C.F.R. §264.193 shall be assessed in accordance with the provisions of 40 C.F.R. §264.192(a)(3) and provided with the necessary corrosion protection as determined pursuant to the assessment.

(4) All tank systems shall be designed, constructed, operated, and maintained in compliance with the requirements of R 29.5101 to R 29.5504 pursuant to the provisions of act 207.

(5) Owners or operators shall label tank systems in accordance with the provisions of NFPA standard no. 704.

(6) The director may waive the interim secondary containment requirements of subrule (2) of this rule for wastewater treatment units and elementary neutralization units based upon an assessment of the hydrogeological aspects of the site with respect to the provisions of part 31 of the act, the nature and volume of the waste treated or stored, and the location and nature of the facility.

(7) NFPA standard no. 704 is adopted by reference in R 299.11002. The provisions of 40 C.F.R. part 264, subpart J, are adopted by reference in R 299.11003. For purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator" and the words "construction permit or operating license application" shall replace the words "part B."

History: 1985 AACS; 1988 AACS; 1994 AACS; 1996 AACS; 1998 AACS; 2008 AACS.

R 299.9616 Surface impoundments.

Rule 616. (1) Owners or operators of facilities that use surface impoundments to treat or store hazardous waste shall comply with the requirements of 40 C.F.R. part 264, subpart K, except 40 C.F.R. §§264.221(f). For new surface impoundments or replacements or lateral expansions of existing surface impoundments where liners are constructed of materials that might allow wastes to migrate into the liner, such as compacted clay, the liner shall, at a minimum, be constructed in accordance with the standards for clay liners contained in R 299.9620(2) and shall be designed, constructed, and installed to prevent any migration of wastes out

of the impoundment to the adjacent subsurface soil, groundwater, or surface water at any time during the active life, including the closure period, of the impoundment.

(2) New surface impoundments or replacements or lateral expansions of existing surface impoundments shall contain a leak detection, containment, and removal system designed, constructed, operated, and maintained in accordance with R 299.9622, unless exempted under that rule.

(3) The owner or operator of an existing surface impoundment shall not close the impoundment as a landfill in accordance with the provisions of 40 C.F.R. §264.228 unless both of the following provisions are complied with:

(a) The site of the surface impoundment meets the location standards of R 299.9603 or can be engineered to meet these standards.

(b) The director does either of the following:

(i) Determines that all contaminated subsoils cannot be practicably removed.

(ii) Issues a construction permit for a facility alteration.

(4) The provisions of 40 C.F.R. part 264, subpart K, except 40 C.F.R. §264.221(f), are adopted by reference in R 299.11003.

History: 1985 AACS; 1996 AACS; 1998 AACS.

R 299.9617 Waste piles.

Rule 617. (1) Owners or operators of facilities that store or treat hazardous waste in piles shall comply with the provisions of 40 C.F.R. part 264, subpart L, except 40 C.F.R. §264.251(f). Where liners are constructed of materials that might allow waste to migrate into the liner, such as compacted clay, the liner shall be constructed in accordance with the standards for clay liners contained in R 299.9620(2).

(2) New waste piles shall contain a leak detection, containment, and removal system designed, constructed, maintained, and operated in accordance with R 299.9622, unless exempted under that rule.

(3) The provisions of 40 C.F.R. part 264, subpart L, except 40 C.F.R. §264.251(f), are adopted by reference in R 299.11003.

History: 1985 AACS; 1996 AACS.

R 299.9618 Land treatment.

Rule 618. (1) Owners or operators of facilities that treat or dispose of hazardous waste in land treatment units shall comply with all requirements of 40 C.F.R. part 264, subpart M.

(2) The provisions of 40 C.F.R. part 264, subpart M, are incorporated by reference in R 299.11003.

History: 1985 AACS.

R 299.9619 Landfills.

Rule 619. (1) Owners or operators of facilities that use landfills to dispose of hazardous waste shall comply with the design and operating requirements of 40 C.F.R. part 264, subpart N, except 40 C.F.R. §264.301(f).

(2) In addition to the liner system requirements of 40 C.F.R. §264.301, the owner or operator of a landfill shall design the liner system to meet the requirements of R 299.9620.

(3) All landfills shall contain a leak detection, collection, and removal system beneath the liner system that is designed, constructed, operated, and maintained pursuant to R 299.9622, unless the landfill is exempted pursuant to R 299.9622.

(4) In addition to the requirements of 40 C.F.R. §264.301(a), the leachate collection and removal system shall include all of the following:

(a) Not less than 30 centimeters of granular material that has a permeability of 1×10^{-2} cm/second or greater, as determined by ASTM standard no. D2434-68, or a layer of geosynthetic drainage materials with a transmissivity of 3×10^{-5} m²/second or greater covered by a minimum of 30 centimeters of a protective layer of granular material with a permeability of 1×10^{-3} cm/second or greater, as determined by ASTM standard no. D2434-68.

(b) Either of the following:

(i) Provisions for discharging the leachate directly to a wastewater treatment unit.

(ii) Provisions for storing the quantity of leachate that is expected to be generated from all cells during a 24-hour, 100-year storm.

(c) Leachate sumps that have all of the following:

(i) A volume that can properly maintain a leachate head of no more than 30 centimeters (12 inches) on the liner.

(ii) A leachate removal system to remove liquid from the sump.

(iii) A device for continuously monitoring the quantity of leachate in the sump and removed from the landfill.

(5) The director may approve alternate design or operating practices to those specified in subrule (4) of this rule if the owner or operator demonstrates to the director that such design and operating practices, together with location characteristics, comply with both of the following requirements:

(a) The alternate design and operating practices shall prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the leachate collection and removal systems specified in subrule (4) of this rule.

(b) The alternate design and operating practices shall allow the detection of leaks of hazardous constituents through the top liner at least as effectively as the leachate collection and removal systems specified in subrule (4) of this rule.

(6) In addition to the closure and postclosure care requirements of 40 C.F.R. §264.310, the owner or operator of a landfill shall do all of the following with respect to closure and postclosure care:

(a) Close the facility so that the final cover includes all of the following unless the owner or operator substitutes an equivalent design which shall include a flexible membrane liner component with a minimum thickness of 1 millimeter (40 mil), depending on the type of material selected, and demonstrates to the director that it provides equivalent environmental protection:

(i) Compacted clay which is in compliance with the requirements of R 299.9620(3) and which is not less than 90 centimeters thick.

(ii) A flexible membrane liner shall be placed directly over the compacted clay layer required pursuant to subdivision (i).

(iii) Not less than 60 centimeters of additional material, such as topsoil, subsurface drainage media, or cobbles to prevent animal burrowing. The additional material shall be applied in a manner that protects the clay and any synthetic component from the effects of temperature, erosion, and rooted vegetation. For temperature protection, the additional material thickness shall equal not less than 60 centimeters or the maximum depth of frost penetration, whichever is greater. In order to provide a minimum base for root penetration, the top component of the additional material shall consist of not less than 15 centimeters of topsoil.

(iv) Slopes of the barrier layer, the drainage layer, and the top of the cover system shall not be less than 4% at any location.

(b) Establish shallow-rooted grasses at the earliest possible time and maintain the vegetation or use other erosion control measures so as to stabilize the cap and prevent erosion. Erosion shall be limited to not more than 2 tons per acre per year based on the universal soil loss equation.

(c) Establish a venting system to prevent the accumulations of gas. The venting system shall be installed in a manner that does not adversely affect the permeability of the cap and, if required pursuant to part 55 of the act, gas emissions shall be monitored, collected, and treated. The director shall exempt the owner or operator from this requirement if the owner or operator demonstrates that gas will not be generated in the landfill.

(7) The director may approve alternative designs and maintenance practices to those specified in subrule (6) of this rule for beneficial uses of closed landfills if the owner or operator demonstrates to the director that such designs and maintenance practices for the landfill cover system will provide equivalent environmental protection.

(8) The provisions of 40 C.F.R. part 264, subpart N, except 40 C.F.R. §264.301(f), are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator."

History: 1985 AACS; 1988 AACS; 1989 AACS; 1991 AACS; 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS.

R 299.9620 Liner requirements for landfills, surface impoundments, and waste piles.

Rule 620. (1) A liner system shall be located, designed, constructed, and operated so that there is no direct contact between the liners and groundwater in a saturated zone such that moisture content would adversely affect the structural and containment integrity of the liners.

(2) The primary liner for a landfill shall be a composite liner. The composite liner shall be designed to have a flexible membrane liner meeting the requirements of 40 C.F.R. 264 subpart N directly over compacted clay which is a minimum of 150 centimeters thick and meets the requirements of subrule (3) of this rule.

(3) A compacted clay liner that is designed to meet the requirements of 40 C.F.R. §§264.221, 264.251, and 264.301, which are adopted by reference in R 299.11003, or R 299.9619 shall meet all of the following requirements for that clay liner:

(a) Comply with the criteria for a unified soil classification of CL or CH as determined by the provisions of ASTM standard D2487-69 (reapproved 1975).

(b) Have more than 25% of the soil particles be less than 5 microns in size.

(c) Be placed in horizontal lifts of not more than 25 centimeters and be uniformly and thoroughly compacted to the standards approved in the design. The lift thickness shall not be more than 25 centimeters (six inches) after compaction. However, the material shall not be compacted to less than 90% of the maximum dry density, as determined by the modified proctor test described in the provisions of ASTM standard D1557-91, or 95% of the maximum dry density, as determined by the standard proctor test described in the provisions of ASTM standard D698-91, which are adopted by reference in R 299.11001, and the moisture content shall be within a range of -2% to +5% of the optimum moisture content.

(d) Have a maximum permeability coefficient of 1.0×10^{-7} cm/sec or less at all points.

(4) The waste pile or landfill base floor shall be graded to a minimum slope of 2% in directions perpendicular to the leachate collection pipes to promote drainage. The leachate pipes shall be laid on a slope of 1% or more in a direction to intercept liquid flow. The director may approve an alternate design to those specified in this subrule if the owner or operator demonstrates to the director that such design, together with location characteristics, complies with both of the following requirements:

(a) The alternate design will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively the design requirements specified in this subrule.

(b) The alternate design will allow the detection of leaks of hazardous constituents through the top liner at least as effectively as the design requirements specified in this rule.

(5) Liner systems and leachate collection systems shall be designed to prevent the damage of the materials of both systems in the event of differential settlement of the foundation under worst case conditions.

History: 1985 AACS; 1988 AACS; 1991 AACS; 2000 AACS.

R 299.9621 Quality control for landfills, surface impoundments, and waste piles.

Rule 621. (1) Owners or operators of landfills, surface impoundments, and waste piles shall conduct a quality control program during construction which shall assure all of the following:

(a) That the natural clay base meets or exceeds the thickness and permeability requirements of R 299.9603(5), by doing either of the following:

(i) Obtaining soil borings and determining the natural moisture content as determined by ASTM standard D2216, grain size distribution (sieve and hydrometer) as determined by ASTM standards D421 and D422-63, classification by the unified soil classification system as determined by ASTM standard D2487-69 (reapproved in

1979), and Atterburg limits of the soil as determined by ASTM standard D4318-94 at varying depths every 100 feet, and the permeability of an undisturbed sample every 200 feet as determined by ASTM standard D5084-90.

(ii) Utilizing resistivity surveys to replace or supplement borings specified in paragraph (i) of this subdivision. Such resistivity surveys shall employ an electrode spacing to give an effective depth of penetration. A sufficient number of stations shall be used to insure that complete coverage to the edge of the waste management area is provided and correlation with borings or wells is obtained.

(b) That the natural clay base provides an adequate sub-base for overlying liners and leachate collection and removal systems, by evaluating the subgrade conditions for stability and correcting wet or unstable areas.

(c) That compacted clay liners meet or exceed the requirements of R 299.9620(2), by doing all of the following:

(i) Constructing the liner such that the bottom liner and the side wall liner (dike) will be continuous and completely keyed together at all construction joints.

(ii) During winter construction, removing all ice and snow before placing the liner and not using frozen soil in any part of liner.

(iii) Determining the field density-moisture of the liner material by utilizing the provisions of ASTM standard D2922-78 for each 1,000 cubic yards placed, with a minimum of 1 test per day of construction or layer of clay placed.

(iv) Determining the particle size distribution (sieve and hydrometer) according to ASTM standards D421 and D422-63, Atterburg limits according to ASTM standard D4318-94, and natural moisture content according to ASTM standard D2216 of random samples of liner material from each 5,000 cubic yards of material placed.

(v) Redetermining the density of liner materials by the modified proctor test, ASTM standard D1557-91, when the texture of the soil changes and every 5,000 cubic yards placed.

(vi) Determining the permeability with water of a soil sample every 10,000 cubic yards placed by using ASTM standard D5084-90, which is adopted by reference in R 299.11001, or other method approved by the director on a sample that is not less than 2.8 inches in diameter.

(vii) Verifying liner thickness and subgrade slope by a final elevation check to ensure that all of the following requirements are met:

(a) The final elevation shall be within plus or minus 0.2 feet of the approved plans.

(b) The slope reduction of the subgrade shall not be greater than 10% of the approved slopes.

(c) The final clay liner thickness shall not be less than the approved thickness at any point.

(d) That synthetic liners are properly installed, by doing all of the following:

(i) Properly preparing the foundation for the liner by doing all of the following:

(A) Compacting to the requirements of R 299.9620.

(B) Grading the foundation to a smooth and true line.

(C) Grading consistent with approved plans.

(D) Grading the foundation to be free from stones or deleterious material.

(E) Removing any vegetation from the foundation before installation of the liner.

(ii) Insuring that field seaming is done under the direction of a registered professional engineer and when weather conditions are favorable for installation.

(iii) Insuring that field seams, joints, and mechanical seals are properly made by wiping contact surfaces clean of dirt, dust, moisture, or other foreign material, assuring that seaming is done in accordance with manufacturer specifications, and testing all field seams by nondestructive tests approved by the director.

(iv) Recording the ambient temperature and liner temperature hourly during liner installation or field seaming.

(e) That leachate collection and leak detection, collection, and removal systems are installed such that the requirements of this rule are met, by doing both of the following:

(i) Making elevation checks at least every 200 feet to verify the appropriate thickness of granular material.

(ii) Sampling randomly at least every 5,000 cubic yards placed to verify the required aggregate classification.

(2) The quality control program required by subrule (1) of this rule shall be documented by written daily records of all work and tests performed during construction. All daily records shall be kept in the operating record for the facility and be made available for inspection by the director or his or her authorized representative.

(3) ASTM standards D421, D2216, D2487-69, D1557-91, D422-63, D2434-68, D4318-94, and D5084-90 are adopted by reference in R 299.11001.

History: 1985 AACS; 1996 AACS; 2000 AACS.

R 299.9622 Leak detection systems.

Rule 622. (1) Each new unit and lateral expansion or replacement of an existing unit at a landfill, surface impoundment, waste pile, or land treatment facility shall include a leak detection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time.

(2) If contamination is detected in the leak detection system required by this rule, the owner or operator shall do all of the following:

(a) Immediately notify the director or his or her designee.

(b) Within 30 days, determine what failures have occurred in the liner system.

(c) If failures have occurred, do either of the following on a schedule which insures the protection of human health and the environment:

(i) Repair the failures in the liner system and obtain the certification of a registered professional engineer that, to the best of his or her knowledge and opinion, the failure has been corrected.

(ii) Cease placing waste in the failed unit and take action to prevent the migration of hazardous waste and hazardous waste constituents from the facility.

(3) The director shall grant an exemption from the requirements for a leak detection system if the owner or operator satisfies the waiver requirements for 2 liners and a leachate collection system between such liners established under the provisions of 40 C.F.R. part 264.301.

History: 1985 AACS; 1988 AACS; 2000 AACS.

R 299.9623 Incinerators.

Rule 623. (1) Owners and operators of facilities that incinerate hazardous waste shall comply with all requirements of this rule, except as subrule (2) of this rule provides otherwise. The following facility owners or operators are considered to incinerate hazardous waste:

(a) Owners or operators of hazardous waste incinerators as defined in R 299.9104.

(b) Owners or operators who burn hazardous waste in boilers or in industrial furnaces to destroy the wastes.

(2) Except as noted in this subrule and subrule (3) of this rule, part 6 of the rules does not apply to owners and operators of new hazardous waste incinerators that become subject to the permit or license requirements of these rules after October 12, 2005, or to owners or operators of existing facilities that incinerate hazardous waste if the owner or operator demonstrates compliance with the air emission standards and limitations in 40 C.F.R. part 63, subpart EEE by conducting a comprehensive performance test and submitting to the director a notification of compliance under 40 C.F.R. §§63.1207(j) and 63.1210(d) which documents compliance with the requirements of 40 C.F.R. part 63, subpart EEE. Nevertheless, even after this compliance demonstration is made, the operating license conditions that are based on the standards of part 6 of the rules will continue to be in effect until they are removed from the operating license or the operating license is terminated or revoked, unless the operating license expressly provides otherwise. The director may apply this subrule and subrule (3) of this rule, on a case-by-case basis, for collecting information pursuant to R 299.9504(18) and (20) and R 299.9521(3)(b) and (c).

(3) The maximum achievable control technology standards of 40 C.F.R. part 63, subpart EEE, do not supersede any of the following requirements:

(a) R 299.9601, R 299.9605 to R 299.9610, R 299.9612, R 299.9613, R 299.9630, R 299.9631, and part 7 of these rules.

(b) The particulate matter standard of 40 C.F.R. §264.343(c), if the owner or operator elects to comply with the alternative to the particulate standard of 40 C.F.R. §§63.1206(b)(14) and 63.1219(e).

(c) The following requirements remain in effect for startup, shutdown, and malfunction events even if a person elects to comply with 40 C.F.R. §270.235(a)(1)(i) to minimize emissions of toxic compounds from these events:

(i) The requirements of 40 C.F.R. §264.345(a) which require that an incinerator operate pursuant to the operating requirements specified in the operating license.

(ii) The requirements of 40 C.F.R. §264.345(c) which require compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(4) Owners and operators of facilities that incinerate hazardous waste shall comply with 40 C.F.R. part 264, subpart O, except 40 C.F.R. §264.340(a) to (d) and 264.344(a)(2) and (b).

(5) The owner or operator of a hazardous waste incinerator shall burn only wastes specified in his or her operating license and only under operating conditions

specified for those wastes under this rule, except in approved trial burns or trial operations. Other hazardous wastes may be burned only after operating conditions have been specified in a construction permit or operating license. Operating requirements for new wastes may be based on either trial burn results or alternative data included with the construction permit or operating license application.

(6) If the owner or operator of a new hazardous waste incinerator conducts a trial burn before application for an operating license, the construction permit for the hazardous waste incinerator shall establish appropriate conditions for each of the applicable requirements of this part, including, but not limited to, allowable waste feeds and operating conditions necessary to meet the requirements of 40 C.F.R. §264.345 and sufficient to comply with 40 C.F.R. §264.344(c)(1) and (2) for the period before and during the trial burn.

(7) The director may require trial operation of an incinerator and the submittal of a trial operations plan containing the information specified in 40 C.F.R. §270.62(b)(2) under the following circumstances:

(a) Before the renewal of an incinerator's operating license under part 111 of the act.

(b) Before the licensing of an incinerator newly subjected to the license requirements of part 111 of the act and these rules.

(c) Before the approval of new waste types through an operating license modification.

(d) The director has evidence that an incinerator may be emitting hazardous constituents in quantities which violate part 55 of the act or these rules.

(8) The requirements of 40 C.F.R. §270.62(a) to (d) shall apply to facilities incinerating hazardous waste, except as otherwise provided in these rules.

(9) An incinerator burning hazardous waste shall be designed, constructed, and maintained so that it will comply with part 55 of the act.

(10) The director may, in addition, specify one or more principal organic hazardous constituents from the lists of hazardous waste or hazardous constituents contained in tables 201 to 206 of these rules.

(11) The provisions of 40 C.F.R. part 63, subpart EEE; 40 C.F.R. part 261, appendix VIII; 40 C.F.R. part 264, subpart O, except 40 C.F.R. §264.340(a) to (d) and §264.344(a)(2) and (b); and 40 C.F.R. §§270.62(a) to (d) and 270.235(a)(1)(i), are adopted by reference in R 299.11003. For the purposes of this adoption, the references to "§124.10" shall be replaced with "R 299.9511," "270.19" shall be replaced with "R 299.9504," "§270.42" shall be replaced with "R 299.9519," and the word "permit" shall be replaced with "operating license."

History: 1985 AACS; 1988 AACS; 1998 AACS; 2000 AACS; 2004 AACS; 2008 AACS.

R 299.9624 Rescinded.

History: 1985 AACS; 1988 AACS; 2004 AACS.

R 299.9625 Rescinded.

History: 1985 AACS; 2004 AACS.

R 299.9626 Rescinded.

History: 1985 AACS; 1998 AACS; 2000 AACS; 2004 AACS.

R 299.9627 Land disposal restrictions.

Rule 627. (1) The owner or operator of a treatment, storage, or disposal facility shall comply with the restrictions on land disposal contained in the provisions of 40 C.F.R. part 268.

(2) The provisions of 40 C.F.R. part 268 are adopted by reference in R 299.11003. For purposes of this adoption, the word "director" shall replace the words "administrator" and "assistant administrator," except in the provisions of 40 C.F.R. §§268.5, 268.6, 268.40(b), 268.42(b), and 268.44(a) to (g) and (i) to (o).

History: 1988 AACS; 1994 AACS; 2000 AACS.

R 299.9628 Requirements for miscellaneous units.

Rule 628. (1) An owner or operator of a facility that treats, stores, or disposes of hazardous waste in miscellaneous units shall comply with the provisions of 40 C.F.R. part 264, subpart X.

(2) Treatment of hazardous waste shall not be allowed in an underground mine or cave.

(3) In addition to the requirements of 40 C.F.R. part 264, subpart X, and all other applicable requirements of these rules, an owner or operator of a facility that stores or disposes of hazardous waste in an underground mine or cave shall design, operate, and maintain the facility throughout its active life and after closure to ensure all of the following:

(a) Management of water so as to maintain the integrity of the mine or cave and protect human health and the environment.

(b) Proper transportation of waste from any surface operation to the final disposal or storage are in the mine or cave so as to prevent the release of a hazardous waste or hazardous waste constituent.

(c) Development of a waste placement map and maintenance of a daily log identifying waste placement locations and correlating those waste placement locations to surface property boundaries.

(d) That the mine or cave is not penetrated by drilling or otherwise adversely impacted by off-site activities.

(4) The provisions of 40 C.F.R. part 264, subpart X, are adopted by reference in R 299.11003.

History: 1991 AACS.

R 299.9629 Corrective action.

Rule 629. (1) Owners or operators of facilities that treat, store, or dispose of hazardous waste shall conduct corrective action as necessary to protect the public health, safety, welfare, and the environment pursuant to a corrective action program approved by the director, unless otherwise specified in this rule. The corrective action program shall be conducted as follows:

(a) Owners or operators of facilities that apply for, or have been issued, an operating license pursuant to part 111 of the act shall institute corrective action for all releases of a contaminant from any waste management units at the facility, regardless of when the contaminant may have been placed in or released from the waste management unit.

(b) Owners or operators of facilities that are not included in subdivision (a) of this subrule and for which the owner or operator, or both, is or was subject to the interim status requirements defined in RCRA, except for facilities that have received formal written approval of the withdrawal of their EPA part A hazardous waste permit application from the director or the EPA, shall institute corrective action for all releases of hazardous waste from the facility, regardless of when the hazardous waste may have been placed in or released from the facility.

(2) Owners or operators shall implement corrective action beyond the facility boundary if the releases referenced in subrule (1) of this rule have or may have migrated, or otherwise have or may have been emitted, beyond the facility boundary, unless the owner or operator demonstrates, to the satisfaction of the director, that, despite the owner's or operator's best efforts, the owner or operator is unable to obtain the necessary permissions to undertake such actions. The owner or operator shall not be relieved of all responsibility to clean up a release that has migrated or been emitted beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided.

(3) The owners or operators who are required to establish a corrective action program pursuant to part 111 of the act and these rules shall, at a minimum, do the following, as applicable:

(a) For facilities that are specified in subdivision (a) of subrule (1) of this rule, the owner or operator, or both, shall take corrective action to ensure compliance with the groundwater protection standards, and, if necessary, other applicable environmental protection standards, established by the director. The director shall specify in a permit, operating license, postclosure operating license, consent order, or other order, pursuant to this rule and R 299.9635 and R 299.9636, schedules of compliance for corrective action and assurances of financial responsibility for completing the corrective action and other requirements, including, any of the following:

(i) A list of the hazardous wastes and hazardous constituents. The list of hazardous constituents are identified pursuant to 40 C.F.R. §264.93.

(ii) The groundwater protection standards which are expressed as concentration limits that are established pursuant to R 299.9612(1)(d) or as concentration limits

established pursuant to part 31 or part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iii) The environmental protection standards which are necessary for the cleanup and protection of soil, surface water, sediments, and ambient air that are established pursuant to part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iv) The compliance point or points at which the standards apply and at which monitoring shall be conducted, which for groundwater are specified pursuant to 40 C.F.R. §264.95.

(v) The compliance period, which for groundwater is specified pursuant to 40 C.F.R. §264.96.

(vi) The restoration and mitigation measures that are necessary to mitigate damage to the natural resources of the state, including wildlife, fish, wetlands, or other ecosystems.

(b) For facilities that are specified in subdivision (b) of subrule (1) of this rule, the owner or operator, or both, shall take corrective action to ensure compliance with the groundwater protection standards, and, if necessary, other applicable environmental protection standards, established by the director. The director shall specify in a consent order or other order, pursuant to this rule and R 299.9635 and R 299.9636, schedules of compliance for corrective action and assurances of financial responsibility for completing the corrective action and other requirements, including any of the following:

(i) A list of the hazardous wastes and hazardous waste constituents.

(ii) The groundwater protection standards which are expressed as concentration limits that are established pursuant to part 31 or part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iii) The environmental protection standards which are necessary for the cleanup and protection of soil, surface water, sediments, and ambient air that are established pursuant to part 201 of the act if the limits are not less stringent than allowed pursuant to RCRA.

(iv) The compliance point or points at which the standards apply and at which monitoring shall be conducted.

(v) The compliance period.

(vi) The restoration and mitigation measures that are necessary to mitigate damage to the natural resources of the state, including wildlife, fish, wetlands, or other ecosystems.

(4) The owner or operator shall implement a corrective action program that prevents contaminants, hazardous wastes, or hazardous waste constituents, as provided for in subrule (1) of this rule, from exceeding their respective protection standards or concentration limits at the compliance point by removing the contaminants, hazardous wastes, or hazardous waste constituents or treating them in place.

(5) For facilities that are conducting a groundwater compliance monitoring program at the time a permit, operating license, postclosure operating license, consent order, or other order is issued or entered, the owner or operator shall begin groundwater corrective action within a reasonable time period after the groundwater protection standard is exceeded. The director shall specify the time

period in the permit, operating license, postclosure operating license, consent order, or other order. If a permit, operating license, postclosure operating license, consent order, or other order includes a groundwater corrective action program in addition to a compliance groundwater monitoring program, then the operating license, postclosure operating license, consent order, or other order shall specify when the corrective action groundwater program will begin and the corrective action groundwater program shall operate in place of the compliance groundwater monitoring program.

(6) In conjunction with a groundwater corrective action program, the owner or operator shall establish and implement a groundwater monitoring program to demonstrate the effectiveness of the groundwater corrective action program. The monitoring program may be based on the requirements for a compliance groundwater monitoring program and shall be as effective as that program in determining compliance with the groundwater protection standards specified in the permit, operating license, postclosure operating license, consent order, or other order and in determining the success of a corrective action program pursuant to the provisions of subrule (8) of this rule, where appropriate. All wells installed to monitor, evaluate, or remediate groundwater shall be constructed and abandoned in accordance with the well installation and well decommissioning procedures in ASTM standards D5092-90 and D5299-92, or a plan approved by the director.

(7) If there is an exceedance of a groundwater surface water interface standard based on acute toxicity and established pursuant to part 201 and part 31 of the act, at any of the groundwater surface water interface compliance monitoring wells required by these rules and approved by the department, then the owner or operator shall immediately do all of the following:

(a) Provide the department with written notification of the exceedance within 7 days of obtaining knowledge and confirmation that the exceedance is occurring or within 30 days of the effective date of this rule, whichever is later.

(b) Within 60 days of the date on which the notice in subdivision (a) of this subrule is required, do 1 or more of the following, unless an extension of a submittal or implementation deadline is approved by the department. In reviewing extension requests, the department shall consider the progress of any corrective action to date, whether or not site conditions inhibit corrective action implementation, whether or not the extension would adversely impact surface water resources, and the nature and extent of the exceedances.

(i) Implement interim actions to prevent exceedances at the monitoring wells referenced in this subrule and submit to the department a proposal and schedule for completing corrective action to prevent a discharge that exceeds the standard.

(ii) Provide the department with written notification of the owner or operator's intent to propose another compliance monitoring point if one has yet not been approved by the department. The notification shall include a schedule for submission of the proposal for department approval. The department may approve the schedule as submitted or direct reasonable modifications in the schedule. The proposal for another compliance monitoring point shall include all of the following:

(A) A demonstration that the proposed compliance monitoring points are more representative of the venting groundwater and allow a more accurate calculation of the discharge rate, in cubic feet per second, of that portion of the venting groundwater

plume that exceeds, or is likely to exceed in the future, a groundwater surface water interface standard, than existing compliance monitoring wells.

(B) A demonstration that the locations where venting groundwater enters surface water have been comprehensively identified.

(C) A demonstration that the proposed compliance monitoring point allows for venting groundwater to be sampled before mixing with surface water.

(D) A demonstration that the proposed compliance monitoring point allows for reliable, representative monitoring of groundwater quality.

(E) Identification and documentation of the chemical, physical, or biological processes that result in the reduction of hazardous constituents between the original compliance monitoring wells required by these rules and the proposed compliance monitoring points.

(F) Consideration of changes in groundwater flow conditions so that samples collected from the proposed compliance monitoring point are representative of groundwater flowing to the surface water. The proposed compliance monitoring points may be located in a floodplain.

(G) Identification of any sentinel monitoring points that will be used in conjunction with the proposed compliance monitoring point to assure that any potential exceedance of an applicable water quality standard can be identified with sufficient notice to allow additional corrective action to be implemented that will prevent the exceedance. Sentinel monitoring points shall include, at a minimum, the original compliance monitoring wells required by these rules.

(iii) Provide the department with written notification of the owner or operator's intent to propose a site-specific standard under MCL 324.20120a(2). The notification shall include a schedule for submission of the proposal for department approval. The department may approve the schedule as submitted or direct reasonable modifications in the schedule.

(c) If the owner or operator does not implement an effective corrective action; submit the notices, proposals, and schedules required in subdivision (b) of this subrule; or comply with the schedules established under subdivision (b) of this subrule; and no extension was approved by the department, the owner or operator shall continue implementation of interim actions to prevent the exceedance until another compliance monitoring point or site-specific standard is approved by the department, or if the proposal is not approved by the department, until a different corrective action is implemented to protect the surface water. If another compliance monitoring point was approved by the department before detection of the exceedance in that compliance monitoring point, corrective action shall continue as long as there is a reasonable potential for an exceedance to occur, or until a different corrective action is implemented to protect the surface water. The owner or operator shall document the interim actions taken to prevent the exceedance and their effectiveness during the time that the department is reviewing a proposal. If the proposal required under paragraph (ii) of subdivision (b) of this subrule does not adequately document the interim actions required to satisfy this rule, it shall be considered incomplete and the department shall not make a decision on the proposal.

(8) In addition to the other requirements of this rule, the owner or operator shall conduct a corrective action program to remove or treat in place any contaminants,

hazardous wastes, and hazardous waste constituents, as provided for in subrule (1) of this rule, that exceed the groundwater protection standards or other environmental protection standards that are specified by the director as follows:

(a) Between the compliance points that are established pursuant to subrule (3)(a)(iv) and (b)(iv) of this rule and the downgradient property boundary and beyond the facility boundary in accordance with subrule (2) of this rule.

(b) Corrective action measures that are undertaken pursuant to this rule shall be initiated and completed within a reasonable period of time considering the extent of contamination.

(c) Corrective action measures that are pursuant to this rule may be terminated once the environmental protection standards specified by the director in the facility permit, operating license, postclosure operating license, consent order, or other order have been achieved for the required period.

(9) The owner or operator shall continue corrective action measures during the compliance period to the extent necessary to ensure that the environmental protection standards are not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, then corrective action shall continue for as long as necessary to achieve compliance with the environmental protection standards. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area, including the closure period, if the owner or operator can demonstrate that the environmental protection standards have been achieved for the required period.

(10) The owner or operator shall report, in writing, to the director, on the effectiveness of the corrective action program pursuant to the schedule specified in the permit, operating license, postclosure operating license, consent order, or other order, but not less than annually.

(11) If an owner or operator determines that the corrective action program does not satisfy the requirements of these rules, he or she shall, pursuant to the permit, operating license, postclosure operating license, consent order, or other order, submit an application for a permit or license modification or request a modification or termination of appropriate sections of any consent order or other order.

(12) The requirements of this rule do not apply to remediation waste management sites unless they are part of a facility subject to the permitting or licensing requirements under part 111 of the act and these rules because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes.

History: 1994 AACS; 1996 AACS; 2000 AACS; 2004 AACS; 2008 MR 5, Eff. Mar. 17, 2008.

R 299.9630 Air emission standards for process vents.

Rule 630. (1) Owners or operators of treatment, storage, or disposal facilities shall comply with the provisions of 40 C.F.R. part 264, subpart AA.

(2) The provisions of 40 C.F.R. part 264, subpart AA, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator."

History: 1994 AACS.

R 299.9631 Air emission standards for equipment leaks.

Rule 631. (1) Owners or operators of treatment, storage, or disposal facilities shall comply with the provisions of 40 C.F.R. part 264, subpart BB.

(2) The provisions of 40 C.F.R. part 264, subpart BB, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator."

History: 1994 AACS.

R 299.9632 Drip pads.

Rule 632. (1) Owners or operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, or surface water run-off to an associated collection system shall comply with the provisions of 40 C.F.R. part 264, subpart W.

(2) For the purposes of this rule, existing drip pads are those constructed before December 6, 1990, and those for which the owner or operator had a design and had entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads.

(3) The provisions of 40 C.F.R. part 264, subpart W, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator."

History: 1994 AACS.

R 299.9633 Hazardous waste treatment.

Rule 633. (1) An owner or operator of a facility that treats hazardous waste shall ensure that the treatment process will change the physical, chemical, or biological character or composition of the waste to do any of the following:

- (a) Neutralize the waste.
- (b) Recover energy or material resources from the waste.
- (c) Render the waste nonhazardous, safer for handling or transport, amenable to recovery, amenable to storage, or reduced in volume.
- (d) Chemically bind or render toxic constituents nonhazardous rather than only diluted.

History: 1996 AACS.

R 299.9634 Air emission standards for tanks, surface impoundments, and containers.

Rule 634. (1) Owners or operators of treatment, storage, or disposal facilities shall comply with the provisions of 40 C.F.R. part 264, subpart CC.

(2) The provisions of 40 C.F.R. part 264, subpart CC, are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator" and "administrator."

History: 1998 AACS.

R 299.9635 Corrective action management unit requirements.

Rule 635. (1) Unless otherwise specified in this rule, corrective action management units shall be subject to all of the requirements of this rule.

(2) Corrective action management units that were approved before April 22, 2002, or for which substantially complete applications or equivalents were submitted to the department on or before November 20, 2000, shall only be subject to the requirements of this subrule. The waste, activities, and design associated with these grandfathered corrective action management units shall not be subject to subrules (3) to (20) of this rule provided the waste, activities, and design remain within the general scope of the corrective action management unit as approved. With respect to these grandfathered corrective action management units, the term corrective action management unit shall mean an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility. For the purposes of implementing corrective action remedies under part 111 of the act and these rules or implementing remedies at licensed facilities that are not subject to corrective action under part 111 of the act and these rules, the director may designate in a license or enforceable document an area of a facility as a corrective action management unit. Corrective action management units shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the corrective action management unit originated. One or more corrective action management units may be designated at a facility.

(3) For the purposes of implementing corrective action remedies under part 111 of the act and these rules or implementing remedies at licensed facilities that are not subject to corrective action under part 111 of the act and these rules, the director may designate in a license or enforceable document an area at a facility as a corrective action management unit. With respect to these corrective action management units, the term corrective action management unit means an area within a facility that is used only for managing corrective action management unit-eligible wastes for implementing corrective action or cleanup at the facility. A corrective action management unit shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the corrective action management unit originated. One or more corrective action management units may be designated at a facility.

(4) The director may prohibit, where appropriate, the placement of waste in a corrective action management unit if the director has or receives information that the waste has not been managed in compliance with applicable land disposal treatment standards of 40 C.F.R. part 268 or applicable unit design requirements of part 6 of these

rules, or that noncompliance with other applicable requirements of part 6 of these rules likely contributed to the release of the waste.

(5) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste, whether or not sorbents have been added, in any corrective action management unit is prohibited except where the placement of such waste facilitates the remedy selected for the waste. The requirements in R 299.9619 for placement of containers holding free liquids in landfills apply to placement in a corrective action management unit except where the placement facilitates the remedy selected for the waste. The placement of any liquid which is not a hazardous waste in a corrective action management unit is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to R 299.9619. The absence or presence of free liquids in either a containerized or a bulk waste shall be determined pursuant to R 299.9619. Sorbents used to treat free liquids in corrective action management units shall meet the requirements of R 299.9619.

(6) The placement of corrective action management unit-eligible wastes into or within a corrective action management unit does not constitute land disposal for the purposes of part 111 of the act or these rules.

(7) The consolidation or placement of corrective action management unit-eligible wastes into or within a corrective action management unit does not constitute the creation of a unit subject to the minimum technology requirements of these rules.

(8) The director may designate a hazardous waste management unit as a corrective action management unit or incorporate a hazardous waste management unit into a corrective action management unit provided both of the following requirements are met:

(a) The hazardous waste management unit is closed or the closure process under part 6 of these rules has been initiated.

(b) The inclusion of the hazardous waste management unit into the corrective action management unit will enhance the implementation of effective, protective, and reliable remedial actions for the facility.

(9) All of the following requirements that applied to the hazardous waste management unit continue to apply to that portion of a corrective action management unit containing the hazardous waste management unit regardless of the designation of the hazardous waste management unit as a corrective action management unit or the incorporation of the hazardous waste management unit into a corrective action management unit:

(a) R 299.9612.

(b) R 299.9629.

(c) 40 C.F.R. part 265, subpart F.

(d) R 299.9613.

(e) 40 C.F.R. part 265, subpart G.

(f) Part 7 of these rules.

(g) The unit-specific requirements of part 6 of these rules that applied to the hazardous waste management unit.

(10) In designating an area at a facility as a corrective action management unit the director shall ensure that the corrective action management unit meets all of the following requirements:

(a) The corrective action management unit facilitates the implementation of reliable, effective, protective, and cost-effective remedies.

(b) The waste management activities associated with the corrective action management unit do not create unacceptable risks to humans or to the environment which result from exposure to hazardous wastes or hazardous constituents.

(c) The corrective action management unit contains only contaminated areas of the facility unless the inclusion of uncontaminated areas of the facility for the purpose of managing corrective action management unit-eligible waste is more protective than management of such wastes at contaminated areas of the facility.

(d) Areas within the corrective action management unit where wastes will remain in place after closure of the unit are managed and contained so as to minimize future releases, to the extent practicable.

(e) The corrective action management unit expedites the timing of remedial activity implementation, when appropriate and practicable.

(f) The corrective action management unit enables the use, when appropriate, of treatment technologies to enhance the long-term effectiveness of the remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the unit.

(g) The corrective action management unit, to the extent practicable, minimizes the land area of the facility upon which wastes will remain in place after closure of the unit.

(11) The owner or operator shall provide the director with sufficient information to enable the director to designate a corrective action management unit pursuant to the criteria specified in this rule. Information on all of the following shall be included unless it is not reasonably available:

(a) The origin of the waste and how it was subsequently managed, including a description of the timing and circumstances surrounding the disposal or release.

(b) Whether the waste was listed or identified as hazardous at the time of disposal or release.

(c) Whether the disposal or release of the waste occurred before or after the land disposal requirements of 40 C.F.R. part 268 were in effect for the waste listing or characteristic.

(12) The director shall specify all of the following information in the license or order for each corrective action management unit:

(a) The areal configuration of the corrective action management unit.

(b) Except as provided for in subrule (16) of this rule, the requirements for corrective action management unit-eligible waste management, including the specification of applicable design, operation, treatment, and closure requirements.

(c) The minimum design requirements for the corrective action management unit. Except as provided in subrule (15) of this rule, corrective action management units that consist of new, replacement, or laterally expanded units shall include a composite liner and a leachate collection system that is designed and constructed to maintain less than a 30-centimeter depth of leachate over the liner. The composite liner system shall consist of two components; the upper component shall consist of a minimum 30-mil flexible membrane liner, and the lower component shall consist of at least a 2-foot layer of compacted soil with a hydraulic conductivity of not more than 1×10^{-7} cm/second.

Flexible membrane liner components consisting of high density polyethylene shall be at least 60 mil thick and shall be installed in direct and uniform contact with the compacted soil component. The director may approve alternate design requirements if the director determines either of the following:

(i) Alternate design and operating practices, together with location characteristics, shall prevent the migration of any hazardous constituents into the groundwater or surface water at least as effectively as the liner and leachate collection systems requirements specified in this subdivision.

(ii) The corrective action management unit is to be established in an area with existing significant levels of contamination, and an alternative design, including a design that does not include a liner, shall prevent migration from the unit that would exceed long-term remediation goals.

(d) The minimum treatment requirements. Unless the wastes will be placed in a corrective action management unit for storage or treatment only pursuant to subrule (15) of this rule, corrective action management unit-eligible wastes that, absent this rule, would be subject to the land disposal treatment standards of 40 C.F.R. part 268, and that the director determines contain principal hazardous constituents, shall be treated to the standards specified in this subdivision. Principal hazardous constituents are those constituents that the director determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site. Principal hazardous constituents include carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10⁻³, non-carcinogens that pose a potential direct risk from ingestion or inhalation an order of magnitude or greater over their reference dose, other constituents if the risks to human health and the environment posed by the potential migration of the constituents in the wastes to groundwater are substantially higher than the cleanup levels or goals at the site after considering constituent concentrations, and fate and transport characteristics under site conditions, and other constituents that pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site. The treatment standards for wastes placed in corrective action management units are as follows, unless the director adjusts the treatment level or method pursuant to subrule (13) of this rule:

(i) For non-metals, the treatment shall achieve 90% reduction in total principal hazardous constituent concentrations.

(ii) For metals, the treatment shall achieve 90% reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media, and tested according to the toxicity characteristic leaching procedure, or 90% reduction in total constituent concentrations when a metal removal treatment technology is used. For metal bearing wastes for which metals removal treatment is not used, the director may specify a leaching test other than the toxicity characteristic leaching procedure to measure treatment effectiveness if the director determines that an alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

(iii) When treatment of any principal hazardous constituent to a 90% reduction standard would result in a concentration less than 10 times the universal treatment standard for that constituent as outlined in 40 C.F.R. §268.48, treatment to achieve

constituent concentrations less than 10 times the universal treatment standard is not required.

(iv) For waste exhibiting the hazardous characteristic of ignitability, corrosivity, or reactivity, the waste shall also be treated to eliminate these characteristics.

(v) For debris, the debris shall be treated pursuant to 40 C.F.R. §268.45, or by methods or to levels established under subparagraphs (i), (ii), (iii), and (iv) of this subdivision or subrule (13) of this rule, whichever the director determines is appropriate.

(e) The requirements for groundwater monitoring and corrective action as necessary to provide for all of the following:

(i) The continued detection and characterization of the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in the groundwater from sources located within the corrective action management unit.

(ii) The detection and subsequent characterization of releases of hazardous constituents to the groundwater that may occur from areas of the corrective action management unit in which wastes will remain in place after closure of the unit.

(iii) The notification of the director and corrective action as necessary to protect human health and the environment for releases to groundwater from the corrective action management unit.

(f) Closure requirements as necessary to minimize the need for further maintenance and control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, postclosure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, surface waters, or atmosphere. The requirements for closure shall include all of the following information as appropriate and deemed necessary by the director for a given corrective action management unit, after considering the characteristics of the unit, volume of wastes which will remain in place after closure, potential for releases from the corrective action management unit, physical and chemical characteristics of the wastes, hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases, and potential for exposure of humans and environmental receptors if releases were to occur from the unit:

(i) The requirements for excavation, removal, treatment, and containment of the wastes.

(ii) The requirements for removal and decontamination of equipment, devices, and structures used in corrective action management unit-eligible waste management activities within the corrective action management unit.

(iii) For areas in which wastes will remain in place after closure of the corrective action management unit, the requirements for capping these areas. If the waste remaining in the corrective action management unit after closure has constituent concentrations at or above remedial levels or goals applicable to the site, the unit shall be provided with a final cover that is designed and constructed to meet the following performance criteria, unless the director determines that modifications to the requirements of this subparagraph are necessary to facilitate treatment or the performance of the unit:

(A) Provide long-term minimization of migration of liquids through the closed unit.

(B) Function with minimum maintenance.

(C) Promote drainage and minimize erosion or abrasion of the cover.

(D) Accommodate settling and subsidence so that the cover's integrity is maintained.

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(g) The postclosure requirements as necessary to protect human health and the environment, including, for areas in which wastes will remain in place, monitoring and maintenance activities and the frequency at which the activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(13) The director may adjust the treatment level or method in subrule (12)(d) of this rule to a higher or lower level, based on 1 or more of the following factors, provided the adjusted level or method is protective of human health and the environment:

(a) The technical impracticability of treatment to the levels or by the methods in subrule (12)(d) of this rule.

(b) The levels or methods in subrule (12)(d) of this rule would result in concentrations of principal hazardous constituents that are significantly above or below cleanup standards applicable to the site, established either site-specifically or promulgated under state or federal law.

(c) The views of the affected local community on the treatment levels or methods in subrule (12)(d) of this rule as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels.

(d) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in subrule (12)(d) of this rule.

(e) The long-term protection offered by the engineering design of the corrective action management unit and related engineering controls where 1 of the following conditions are met:

(i) The treatment standards of subrule (12)(d) of this rule are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility.

(ii) Cost-effective treatment has been used and the corrective action management unit meets the liner and leachate collection requirements for new land disposal units in part 6 of these rules.

(iii) After review of appropriate treatment technologies, the director determines that cost-effective treatment is not reasonably available, and the corrective action management unit meets the liner and leachate collection requirements for new land disposal units in part 6 of these rules.

(iv) The cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility.

(v) After review of the appropriate treatment technologies, the director determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the corrective action management unit meets or exceeds the liner standards for new, replacement, or laterally expanded corrective action management units in subrule (12)(c) of this rule, or the corrective action management unit provides substantially equivalent or greater protection.

(14) The treatment required by the treatment standards of this rule shall be completed before, or within a reasonable time after, placement in the corrective action management unit. For the purposes of determining whether wastes placed in corrective

action management units have been treated to site-specific treatment standards and treatment completed, the director may, as appropriate, specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents. This specification shall be based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

(15) Corrective action management units that are used for storage or treatment only are units in which waste will not remain after closure. These corrective action management units shall be designated pursuant to all of the requirements of this rule, except as follows:

(a) Corrective action management units that are used for storage or treatment only and that operate pursuant to the time limits established in 40 C.F.R. §§264.554(d)(1)(iii), (h), and (i), are subject to the requirements for staging piles in 40 C.F.R. §§264.554(d)(1)(i) and (ii), (d)(2), (e), (f), (j), and (k), which are adopted by reference in R 299.9638, instead of the performance standards and requirements for corrective action management units in subrules (10) and (12)(c) to (f) of this rule.

(b) Corrective action management units that are used for storage or treatment only and that do not operate pursuant to the time limits established in 40 C.F.R. §§264.554(d)(1)(iii), (h), and (i) shall operate pursuant to a time limit established by the director, that is no longer than necessary to achieve a timely remedy selected for the waste and are subject to the requirements for staging piles in 40 C.F.R. §§264.554(d)(1)(i) and (ii), (d)(2), (e), (f), (j), and (k) instead of the performance standards and requirements for corrective action management units in subrules (10) and (12)(d) to (f) of this rule.

(16) Corrective action management units into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site may comply with the requirements for liners in subrule (12)(c) of this rule, caps in subrule (12)(f)(iii) of this rule, groundwater monitoring requirements in subrule (12)(e) of this rule, or for treatment or storage corrective action management units, the design standards of subrule (15) of this rule.

(17) The director shall provide public notice and a reasonable opportunity for public comment before designating a corrective action management unit. The notice shall include the rationale for any proposed adjustments under subrule (13) of this rule to the treatment standards in subrule (12)(d) of this rule.

(18) Notwithstanding any other provision of this rule, the director may impose additional requirements as necessary to protect human health and the environment.

(19) The incorporation of a corrective action management unit into an existing license shall be approved by the director pursuant to R 299.9519 and R 299.9520.

(20) The designation of a corrective action management unit does not change the department's existing authority to address environmental protection standards, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

History: 2000 AACS; 2004 AACS.

R 299.9636 Temporary unit requirements.

Rule 636. (1) For the purposes of implementing corrective action remedies under part 111 of the act and these rules or implementing remedies at facilities that are not subject to corrective action under part 111 of the act and these rules, the director may designate tank or container storage units used for the treatment or storage of remediation wastes as temporary units. A temporary unit shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the temporary unit originated. In establishing standards for temporary units, the director shall consider all of the following factors:

- (a) The length of time the unit will be in operation.
- (b) The type of unit.
- (c) The volume of waste to be managed.
- (d) The physical and chemical characteristics of the wastes to be managed in the unit.
- (e) The potential for releases from the unit.
- (f) The hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases.
- (g) The potential for exposure of humans and environmental receptors if a release were to occur from the unit.

(2) The director may allow the use of alternate design, operating, and closure standards for temporary units provided all of the following requirements are met:

- (a) The temporary unit is located within the facility boundary.
- (b) The temporary unit is used only for the treatment or storage of remediation wastes.
- (c) The alternate standards are protective of human health and the environment.

(3) The director shall specify all of the following information in the license or order for each temporary unit:

- (a) The length of time a temporary unit will be allowed to operate shall be not greater than 1 year.
- (b) The design, operating, and closure requirements for the unit.

(4) The director may extend the operational period of the temporary unit 1 time, for a period of no longer than 1 year beyond the time period originally specified in the license or order, provided that all of the following requirements are met:

- (a) The continued operation of the unit will not pose a threat to human health and the environment.
- (b) The continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(5) The incorporation of a temporary unit or a time extension for a temporary unit into an existing license shall be requested and approved by the director in accordance with R 299.9519 and R 299.9520.

(6) The director shall document the rationale for designating a temporary unit and for granting time extensions for temporary units and make the documentation available to the public.

History: 2000 AACS.

R 299.9637 Hazardous waste munitions and explosives storage requirements.

Rule 637. (1) Owners or operators of storage facilities that store munitions and explosive hazardous wastes shall comply with the requirements of 40 C.F.R. part 264, subpart EE.

(2) The provisions of 40 C.F.R. part 264, subpart EE are adopted by reference in R 299.11003. For the purposes of this adoption, the word "director" shall replace the words "regional administrator," the word "R 299.9607" shall replace the words "40 C.F.R. part 264, subpart D," the word "R 299.9203(5)" shall replace the words "40 C.F.R. §261.3(d)," the word "R 299.9613" shall replace the words "40 C.F.R. part 264, subpart G," and the words Part 7 of the rules promulgated pursuant to the act" shall replace the words "40 C.F.R. part 264, subpart H."

History: 2000 AACS.

R 299.9638 Staging pile requirements.

Rule 638. (1) Owners or operators of staging piles shall comply with the provisions of 40 C.F.R. §264.554, except §264.554(l).

(2) Staging piles shall be designated by the director in accordance with the requirements of 40 C.F.R. §264.554.

(3) Owners or operators that wish to modify an order to incorporate a staging pile or a staging pile operating term extension shall follow the terms of the order and the applicable provisions of part 5 of these rules.

(4) The provisions of 40 C.F.R. §264.554, except §264.554(l) are adopted by reference in R 299.11003. For the purposes of this adoption, the word "R 299.9212" shall replace the words "§261.21 or §261.23."

History: 2000 AACS.

R 299.9639 Disposal of corrective action management unit-eligible waste in hazardous waste landfills.

Rule 639. (1) The director with regulatory oversight at the location where the cleanup is taking place may approve the placement of corrective action management unit-eligible waste in hazardous waste landfills not located at the site from which the waste originated, without the waste meeting the requirements of 40 C.F.R. part 268, if all of the following conditions are met:

(a) The waste meets the definition of corrective action management unit-eligible waste in R 299.9102.

(b) The director with regulatory oversight at the location where the cleanup is taking place identifies principal hazardous constituents in such wastes, pursuant to R 299.9635(12)(d), and requires that such principal hazardous constituents are treated to any of the following standards specified for corrective action management unit-eligible waste:

(i) The treatment standards in R 299.9635(12)(d).

(ii) The treatment standards adjusted pursuant to R 299.9635(13)(a), (c), (d), or (e)(i).

(iii) The treatment standards adjusted pursuant to R 299.9635(13)(e)(ii), where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

(c) The hazardous waste landfill receiving the corrective action management unit-eligible waste shall meet all of the following requirements:

(i) Have an operating license issued under part 111 of the act and these rules or, if out-of-state, have a comparable enforceable mechanism issued under the regulations governing the receiving landfill.

(ii) Meet the requirements for new landfills in part 6 of these rules or, if out-of-state, meet comparable requirements in the regulations governing the receiving landfill.

(iii) Be authorized to accept corrective action management unit-eligible waste.

(2) The person seeking approval for disposal of corrective action management unit-eligible waste shall provide sufficient information to enable the director with regulatory oversight at the location where the cleanup is taking place to approve placement of the waste pursuant to subrule (1) of this rule. The information required pursuant to R 299.9635(11) for corrective action management unit applications shall be provided, unless it is not reasonably available.

(3) The director with regulatory oversight at the location where the cleanup is taking place shall provide public notice and a reasonable opportunity for public comment before approving corrective action management unit-eligible waste for placement in an off-site licensed hazardous waste landfill, or, if out-of-state, in a hazardous waste landfill with a comparable enforceable mechanism issued under the governing regulations, consistent with the requirements for corrective action management unit approval in R 299.9635(17). The approval shall be specific to a single remediation.

(4) Applicable hazardous waste management requirements in part 6 of these rules, including recordkeeping requirements to demonstrate compliance with treatment standards approved under R 299.9635 and this rule, or, if out-of-state, comparable requirements, for corrective action management unit-eligible waste shall be incorporated into the receiving facility license or, if out-of-state, the comparable enforceable mechanism through issuance or modification, providing notice and an opportunity for comment and a hearing. A landfill may not receive hazardous corrective action management unit-eligible waste under this rule unless its operating license or comparable enforceable mechanism specifically authorizes receipt of such waste.

(5) With respect to each remediation activity, corrective action management unit-eligible waste shall not be placed in an off-site landfill authorized to receive the waste pursuant to subrule (4) of this rule until all of the following conditions have been met:

(a) The owner or operator of the landfill notifies the director responsible for oversight of the landfill and persons on the facility mailing list of his or her intent to receive corrective action management unit-eligible waste pursuant to this rule. The notice shall identify the source of the remediation waste, the principal hazardous constituents in the waste, and the treatment requirements.

(b) Persons on the facility mailing list may provide comments, including objections to the receipt of the corrective action management unit-eligible waste, to the director within 15 days of notification.

(c) The director may object to the placement of the corrective action management unit-eligible waste in the landfill within 30 days of notification. The director may extend the review period an additional 30 days because of public concerns or insufficient information.

(d) Corrective action management unit-eligible wastes may not be placed in the landfill until the director has notified the facility owner or operator that he or she does not object to its placement.

(e) If the director objects to the placement or does not notify the facility owner or operator that he or she has chosen not to object, the facility may not receive the waste until the objection has been resolved, or the owner or operator obtains an operating license or, if out-of-state, a comparable enforceable mechanism, modification in accordance with R 299.9519 or, if out-of-state, the governing requirements, specifically authorizing receipt of the waste.

(f) As part of the operating license or, if out-of-state, a comparable enforceable mechanism, issuance or modification process in subrule (4) of this rule, the director may modify, reduce, or eliminate the notification requirements of this subrule as they apply to specific categories of corrective action management unit-eligible waste, based on minimal risk.

(6) Generators of corrective action management unit-eligible wastes sent off-site to a hazardous waste landfill under this rule shall comply with 40 C.F.R. §268.7(a)(4).

(7) Off-site facilities treating corrective action management unit-eligible wastes to comply with this rule shall comply with the requirements of 40 C.F.R. §268.7(a)(4), or if out-of-state, the requirements governing such wastes, except that the certification shall be with respect to the treatment requirements of subrule (1)(b) of this rule or, if out-of-state, the governing treatment requirements.

(8) For the purposes of this rule only, the “design of the corrective action management unit” in R 299.9635(13)(e) means design of the licensed hazardous waste landfill.

History: 2004 AACS.

R 299.9640 Options for incinerators, cement kilns, and lightweight aggregate kilns to minimize emissions from startup, shutdown, and malfunction events.

Rule 640. (1) Owners and operators of permitted or licensed incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces may request that the director address construction permit or operating license conditions that minimize emissions from startup, shutdown, and malfunction events under any of the options in 40 C.F.R. §270.235(a) when requesting removal of construction permit or operating license conditions that are no longer applicable according to R 299.9623(2) or R 299.9808(4).

(2) Owners and operators of interim status incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces operating under parts 6 and 8 of these rules may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the director a notification of compliance documenting compliance with 40 C.F.R. part 63, subpart EEE:

(a) The owner or operator continues to comply with the emission standards and operating requirements of parts 6 and 8 of these rules relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements only apply during startup, shutdown, and malfunction events.

(b) The owner or operator is exempt from the standards of parts 6 and 8 of these rules relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the director that the startup, shutdown, and malfunction plan required pursuant to 40 C.F.R. §63.1206(c)(2) has been approved by the department pursuant to 40 C.F.R. §63.1206(c)(2)(ii).

(3) When an owner or operator of an interim status incinerator, cement kiln, or lightweight kiln operating under parts 6 and 8 of these rules submits an operating license application to the director, the owner or operator may request that the director control emissions from startup, shutdown, and malfunction events under subrule (1) of this rule.

(4) Hazardous waste incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, or hydrochloric acid production furnaces that become subject to the permitting or licensing requirements of these rules after October 12, 2005, shall control emissions of toxic compounds during startup, shutdown, and malfunction events in accordance with 40 C.F.R. §270.235(c).

(5) The provisions of 40 C.F.R. §270.235(a) and (c) are adopted by reference in R 299.11003. For the purposes of this adoption, the word "permit" shall be replaced with "operating license," and the references to "264.340(b)" shall be replaced with "R 299.9623(2)," "266.100(b)" replaced with "R 299.9808(4)," and "270.41(a)" and "270.42" replaced with "R 299.9519."

History: 2004 AACS; 2008 AACS.

PART 7. FINANCIAL CAPABILITY

R 299.9701 Applicability; definitions.

Rule 701. (1) Except as specified in subrule (2) of this rule, the requirements of this part apply to all facilities which treat, store, or dispose of hazardous waste or which accepted hazardous waste for disposal after November 19, 1980.

(2) States and the federal government are exempt from the requirements of this part.

(3) The definitions of terms contained in the provisions of 40 C.F.R.-264.141 are adopted by reference in R 299.11003.

History: 1985 AACS; 1989 AACS; 1998 AACS; 2000 AACS.

R 299.9702 Cost estimate for closure and post-closure care.

Rule 702. (1) The owner or operator shall comply with the requirements of 40 C.F.R. §§264.142 and 264.144 regarding written cost estimates for closure and post-closure care.

(2) The provisions of 40 C.F.R. §§264.142 and 264.144 are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS.

R 299.9703 Financial assurance for closure and postclosure care.

Rule 703. (1) The owner or operator of each facility shall establish financial assurance for closure of the facility by utilizing the options specified in R 299.9704 to R 299.9709. The owner or operator of each disposal facility shall establish financial assurance for postclosure care of the facility utilizing the options specified in R 299.9704 to R 299.9709. An owner or operator of a new facility shall submit these documents to the director or his or her designee not less than 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. An owner or operator shall submit all revisions and renewals of the documents to the director within 60 days of the revision or renewal.

(2) An owner or operator may satisfy the requirements of this rule by establishing more than 1 financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, certificates of deposit and time deposit accounts, and insurance. The mechanisms shall be as specified in this part, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current closure and postclosure cost estimate. The director may use any or all of the mechanisms to provide for closure and postclosure care of the facility.

(3) An owner or operator may use a financial assurance mechanism specified in this part to meet the requirements of this rule for more than 1 facility. Evidence of financial assurance submitted to the director shall include a list showing, for each facility, the site identification number, name, address, and the amount of funds for closure and postclosure assured by the mechanism. If the facilities covered by the mechanism are in more than 1 EPA region, identical evidence of financial assurance shall be submitted to, and maintained with, the regional administrators of all such EPA regions. The amount of funds available through the mechanism shall be not less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure and postclosure care of any of the facilities covered by the mechanism, the director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(4) An owner or operator may satisfy the requirements for financial assurance for both closure and postclosure care for one or more facilities by using a trust fund, surety bond, letter of credit, certificate of deposit and time deposit account, or insurance that meets the requirements of this part for both closure and postclosure care. The amount of funds available through the mechanism shall not be less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of postclosure care.

(5) Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that closure has been accomplished in accordance with the closure plan, or that the postclosure care period has been completed for a hazardous waste disposal unit in accordance with the approved postclosure plan, the director shall notify the owner or operator, in writing, that he or she is no longer required by this section to maintain financial assurance for closure of the particular facility or postclosure care of the particular unit, unless the director has reason to believe that closure or postclosure care has not been in accordance with the approved plan. The director shall provide the owner or operator with a detailed written statement of any such reason to believe that closure or postclosure care has not been in accordance with the approved plan.

(6) An owner or operator shall notify the director, by certified mail, of the commencement of a voluntary or involuntary proceeding under the bankruptcy provisions of Public Law 95-598, 11 U.S.C. §§1 to 151302, naming the owner or operator as debtor, within 10 days after commencement of the proceeding.

(7) An owner or operator who fulfills the requirements of this rule by obtaining a trust fund, surety bond, letter of credit, certificate of deposit or time deposit account, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, a suspension or revocation of the authority of the trustee institution to act as trustee, or a suspension or revocation of the authority of the institution issuing the surety bond, letter of credit, certificate of deposit or time deposit account, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

(8) The director may replace all or part of the requirements of this rule with alternative requirements for financial assurance if the director does all of the following:

(a) Prescribes alternative requirements for the hazardous waste management unit under 40 C.F.R. §§264.90(f) or 264.110(c), or both, or 265.90(f) or 265.110(d), or both.

(b) Determines that it is not necessary to apply the requirements of this rule because the alternative financial assurance requirements will protect human health and the environment.

(c) Specifies the alternative financial assurance requirements in an operating license or enforceable document.

(9) The provisions of 40 C.F.R. §§264.90(f), 264.110(c), 265.90(f), and 265.110(d) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1998 AACS; 2000 AACS; 2004 AACS.

R 299.9704 Trust fund.

Rule 704. (1) An owner or operator may satisfy the financial assurance requirements of R 299.9703 by establishing a trust fund for closure or post-closure, or both, which conforms to the requirements of this rule. The trustee shall be a bank or other financial institution which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency, and the trust agreement shall be executed on a form approved by the director.

(2) The trust fund shall be funded at 100% of the closure and post-closure cost estimate approved at the time of execution. Additional payments to the trust fund shall be made by the owner or operator to maintain 100% funding when the closure or post-closure cost estimates, or both, are increased.

(3) If the value of the trust fund is more than the total amount of the current closure or post-closure cost estimate, or both, the owner or operator may submit a written request to the director for release of the amount in excess of the current closure or post-closure cost estimate.

(4) If an owner or operator substitutes other financial assurance, as specified in this part, for all or part of the trust fund, he or she may submit a written request to the director for release of the amount in excess of the current closure or post-closure cost estimate covered by the trust fund.

(5) Within 60 days after receiving a request from the owner or operator for release of funds as specified in subrules (3) or (4) of this rule, the director shall instruct the trustee to release to the owner or operator such funds as the director specifies in writing.

(6) After beginning partial or final closure, an owner or operator or any other person authorized to perform closure, partial closure, or post-closure care may request reimbursements for closure, partial closure, or post-closure expenditures by submitting itemized bills to the director. The owner or operator may request reimbursement for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure, partial closure, or post-closure care activities, the director shall determine whether the closure, partial closure, or post-closure care expenditures, or both, are in accordance with the closure plan or otherwise justified, and, if so, he or she shall instruct the trustee to make reimbursement in such amounts as the director specifies in writing. If the director does not instruct the trustee to make such reimbursements, the director shall provide the owner or operator with a detailed written statement of reasons.

(7) If the director has reason to believe that the cost of closure or post-closure care, or both, will be significantly more than the value of the trust fund, the director may withhold reimbursement of such amounts as he or she deems prudent until he or she determines, in accordance with R 299.9703(6), that the owner or operator is no longer required to maintain financial assurance for closure or post-closure care, or both.

(8) During the period of post-closure care, the director may approve a release of funds if the owner or operator demonstrates to the director that the value of the trust fund exceeds the remaining cost of post-closure care.

(9) The director shall agree to termination of the trust when an owner or operator substitutes alternate financial assurance as specified in this part and the director releases

the owner or operator from the requirements of this part in accordance with R 299.9703(5).

(10) If the director issues a notice of violation or other order to the owner or operator alleging violation of closure or post-closure requirements, or both, the director may, after providing the owner or operator 7 days' notice and opportunity for hearing, access the funds in the trust to correct the violations, complete closure, and maintain the facility in accordance with the approved plans.

History: 1985 AACS; 1988 AACS.

R 299.9705 Surety bond guaranteeing performance of closure and/or postclosure care.

Rule 705. (1) An owner or operator may satisfy the financial assurance requirements of R 299.9703 by obtaining a surety bond which is executed on a form approved by the director and which conforms to the requirements of this rule. The surety company issuing the bond shall, at a minimum, satisfy both of the following requirements:

(a) The surety company shall be among those listed as acceptable sureties on federal bonds in circular 570 of the United States department of the treasury.

(b) The surety company shall be independent, separate, and unrelated to the owner or operator.

(2) The bond shall guarantee that the owner or operator will do either of the following:

(a) Perform final closure or postclosure care in accordance with the closure or postclosure plan and other requirements of the operating license for the facility when required to do so.

(b) Within 90 days after receipt by both the owner or operator and the director of a notice of cancellation of the bond from the surety, provide alternate financial assurance as specified in this part and obtain the director's written approval of the assurance provided.

(3) Under the terms of the bond, the surety shall become liable on the bond obligation under the following circumstances:

(a) When the owner or operator fails to perform as guaranteed by the bond.

(b) Following issuance of a notice of violation or other order by the director alleging that the owner or operator has failed to perform final closure or postclosure care, or both, in accordance with the closure and postclosure plans and other operating license requirements when required to do so and after providing the owner or operator 7 days notice and an opportunity for a hearing.

(4) The penal sum of the bond shall be in an amount at least equal to the current closure and postclosure cost estimates.

(5) When the current closure or postclosure cost estimate, or both, increases to an amount more than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure or postclosure cost estimate, or both, and submit evidence of such increase to the director or obtain other financial assurance as specified in this part. When the current closure or postclosure cost estimate decreases, the penal sum may be

reduced to the amount of the current closure or postclosure cost estimate following written approval by the director.

(6) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation, by certified mail, to the owner or operator and to the director. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(7) The owner or operator may cancel the bond if the director has given prior written consent. The director shall provide such written consent when either of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this part.

(b) The director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

(8) The surety shall not be liable for deficiencies in the performance of closure or postclosure care, or both, by the owner or operator after the director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

(9) Upon receipt of a notice of cancellation of the bond from the surety, the owner or operator shall obtain alternate financial assurance approved by the director within 60 days. If the owner or operator fails to so provide, the director may issue a notice of violation or other order rendering the surety liable on the bond obligation.

History: 1985 AACS; 2008 AACS.

R 299.9706 Letter of credit.

Rule 706. (1) An owner or operator may satisfy the requirements of this part by obtaining an irrevocable letter of credit which conforms to the requirements of this rule and which is executed on a form approved by the director. The issuing institution shall be a bank or financial institution which has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

(2) The letter of credit shall include all of the following information:

(a) The site identification number.

(b) Name and address of the facility.

(c) The amount of funds assured for closure or postclosure care of the facility by the letter of credit.

(3) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least 1 year unless, not less than 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the director have received the notice, as evidenced by the return receipts.

(4) The letter of credit shall be issued in an amount at least equal to the current closure or postclosure cost estimate, or both, except as provided in R 299.9703(2).

(5) When the current closure or postclosure cost estimate, or both, increases to an amount more than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current closure or postclosure cost estimate and submit evidence of such increase to the director or obtain other financial assurance as specified in this part to cover the increase. When the current closure or postclosure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure or postclosure cost estimate following written approval by the director.

(6) The director may draw on the letter of credit to correct violations, complete closure, and maintain the facility pursuant to approved plans after doing both of the following:

(a) Issuing a notice of violation or other order to the owner or operation which alleges that the owner or operator has failed to perform final closure or postclosure care, or both, pursuant to the closure and postclosure plans and other permit requirements when required.

(b) Providing the owner or operator with 7 days notice and opportunity for hearing.

(7) If the owner or operator does not establish alternate financial assurance as specified in this part and obtain written approval of such alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, then the director shall draw on the letter of credit. The director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension, the director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in this part and obtain written approval of such assurance from the director.

(8) The director shall return the letter of credit to the issuing institution for termination when either of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this part.

(b) The director releases the owner or operator from the requirements of this part pursuant to R 299.9703(5).

History: 1985 AACS; 2000 AACS; 2004 AACS.

R 299.9707 Certificate of deposit or time deposit account.

Rule 707. (1) An owner or operator may satisfy the requirements of R 299.9703 by placing funds in the amount of the current approved closure or post-closure cost estimate in an insured, negotiable certificate of deposit or time deposit account held by a bank or other financial institution regulated and examined by a federal or state agency. The value of the certificate of deposit or time deposit account shall be fully insured by an agency of the United States government, unless otherwise approved by the director.

(2) The certificate or account shall be in the sole name of the director with a maturity of not less than 6 months.

(3) The owner or operator shall execute an agreement with the director which identifies the reasons for which the director may cash the certificate of deposit or time deposit account. The agreement shall be executed on a form approved by the director.

(4) A certificate or time deposit account of less than a 1-year maturity shall provide for automatic renewal. An owner or operator shall renew or replace a certificate of deposit or time deposit account of 1 year or more not less than 60 days before the maturity date.

(5) The certificate of deposit or time deposit account shall be issued in an amount at least equal to the current approved closure or post-closure cost estimate, except when used with other mechanisms as provided in R 299.9703(2).

(6) When the current approved closure or post-closure cost estimate increases to an amount more than the value of the certificate of deposit or time deposit account, the owner or operator, within 60 days after the increase is approved or issued by the director, shall either cause the amount of the certificate of deposit or time deposit account to be increased so that it at least equals the current approved closure or post-closure cost estimate and submit evidence of such increase to the director or obtain other financial assurance as specified in this part to cover the increase. During the period of post-closure care, the director may approve a decrease in the amount of the certificate of deposit or time deposit account if the owner or operator demonstrates to the director that the amount exceeds the remaining cost of post-closure care after inflation is considered.

(7) The director may cash the certificate of deposit or withdraw funds from the time deposit account to correct the violations, complete closure, and maintain the facility in accordance with the approved plans after doing both of the following:

(a) Issuing a notice of violation or other order to the owner or operator which alleges that the owner or operator has failed to perform closure or post-closure care in accordance with the closure or post-closure plan or other license requirements.

(b) Providing the owner or operator 7 days' notice and opportunity for hearing.

(8) If the owner or operator elects not to continue the use of the certificate of deposit or time deposit account to provide financial assurance as required, or any portion thereof, the owner or operator shall provide acceptable financial assurance to the director 60 days before the maturity date of the certificate of deposit or time deposit account. If the owner or operator fails to so provide, the director may cash the certificate of deposit or time deposit account and place the funds in a state treasury account. The director may release such funds to the owner or operator at such time as the owner or operator provides acceptable replacement financial assurance.

(9) The director shall release funds held in a certificate of deposit or time deposit account to the owner or operator when the owner or operator substitutes alternate financial assurance as specified in this part or the director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

History: 1985 AACS.

R 299.9708 Closure or postclosure insurance.

Rule 708. (1) An owner or operator may satisfy the requirements of R 299.9703 by obtaining closure or postclosure insurance, or both, which conforms to the requirements of this rule and by submitting both of the following to the director:

- (a) A certificate of insurance which uses wording approved by the director.
- (b) A certified true and complete copy of the insurance policy.

(2) An owner or operator of a new facility shall submit the certificate of insurance and insurance policy to the director not less than 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(3) The insurer shall satisfy all of the following requirements:

(a) The insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in the state of Michigan.

(b) The insurer shall have a minimum of \$7,000,000.00 of unimpaired surplus funds.

(c) The insurer shall assume financial responsibility for the accepted risk, pursuant to the terms of the policy, using its own pool of resources that is independent, separate, and unrelated to that of the owner or operator.

(4) The closure or postclosure insurance policy shall be issued for a face amount at least equal to the current closure or postclosure cost estimate, except as provided in R 299.9703(2). Actual payments by the insurer shall not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(5) The closure insurance policy shall guarantee that funds will be available to close the facility when final closure occurs. The postclosure insurance policy shall guarantee that funds will be available to provide postclosure care of the facility when the postclosure period begins. The policy shall also guarantee that, once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the director, to such person or persons as the director specified.

(6) After beginning partial or final closure, an owner or operator or any other person authorized to perform closure or postclosure care may request reimbursements for closure or postclosure expenditures by submitting itemized bills to the director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure or postclosure activities, the director shall determine if the expenditures are in accordance with the closure or postclosure plan or otherwise justified, and, if so, he or she shall instruct the insurer to make reimbursement in such amounts as the director specified in writing. If the director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly more than the face amount of the policy, the director may withhold reimbursement of such amounts as he or she deems prudent until he or she determines, in accordance with R 299.9703(5), that the owner or operator is no longer required to maintain financial assurance for closure of the facility. If the director does not instruct the insurer to make such reimbursements, then the director shall provide the owner or operator with a detailed written statement of reasons.

(7) The owner or operator shall maintain the policy in full force and effect until the director consents to termination of the policy by the owner or operator as specified in subrule (12) of this rule. In addition, failure to pay the premium without substitution of alternate financial assurance as specified in this part shall constitute a significant violation of these rules and shall warrant such other remedy as the director deems necessary. Such violation will be deemed to begin upon receipt, by the director, of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(8) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer if such consent is not unreasonably refused.

(9) The policy shall provide that the insurer shall not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, then the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice, by certified mail, to the owner or operator and the director; however, the policy shall unconditionally provide for all of the following:

(a) That if the owner or operator fails to renew the policy or provide alternate financial assurance as approved by the director not less than 60 days before the expiration date of the policy, then the insurer shall immediately pay, to the director, the full amount of closure and postclosure coverage under the policy if requested, in writing, by the director before the expiration date of the policy.

(b) That cancellation, termination, or failure to renew shall not occur during the 120 days beginning with the date of receipt of the notice by both the director and the owner or operator, as evidenced by the return receipts.

(c) That cancellation, termination, or failure to renew shall not occur, and the policy shall remain in full force and effect, if, on or before the date of expiration, any of the following occurs:

(i) The director deems the facility abandoned.

(ii) The permit is terminated or revoked or a new permit is denied.

(iii) Closure is ordered by the director, a United States district court, or other court of competent jurisdiction.

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under the bankruptcy provisions of Public Law 95-598 11 U.S.C. §§1 to 151302.

(v) The premium due is paid.

(10) The policy shall unconditionally provide that the insurer shall, after the hearing, immediately pay to the director any amount requested by the director up to the full value of the appropriate closure or postclosure policy to correct the closure or postclosure violations following issuance of a notice of violation or other order by the director which does both of the following:

(a) Alleges that the owner or operator has failed to perform closure or postclosure care, or both, in accordance with the closure plan, postclosure plan, or other requirements of part 111 of the act, these rules, or the operating license.

(b) Provides 7 days notice and opportunity for hearing.

(11) If the current closure or postclosure cost estimate increases to an amount more than the face amount of the policy, then the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current closure or postclosure cost estimate and submit evidence of such increase to the director or obtain other financial assurance as specified in this part to cover the increase. If the current closure or postclosure cost estimate decreases, then the face amount may be reduced to the amount of the current closure or postclosure cost estimate following written approval by the director.

(12) The director shall give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this rule.

(b) The director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

History: 1985 AACS; 1988 AACS; 1998 AACS; 2000 AACS.

R 299.9709 Financial test and corporate guarantee for closure or postclosure.

Rule 709. (1) An owner or operator may satisfy the requirements of this part by demonstrating that he or she passes a financial test as specified in this rule. To pass this test, the owner or operator shall meet the criteria of either subdivision (a) or (b) of this subrule as follows:

(a) The owner or operator shall have all of the following:

(i) Two of the following 3 ratios:

(A) A ratio of total liabilities to net worth less than 2.0.

(B) A ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities of more than 0.1.

(C) A ratio of current assets to current liabilities of more than 1.5.

(ii) Net working capital and tangible net worth each not less than 6 times the sum of the current closure and postclosure cost estimates and any other obligations covered by a financial test.

(iii) Tangible net worth of not less than \$10,000,000.00.

(iv) Assets in the United States amounting to not less than 90% of his or her total assets or not less than 6 times the sum of the current closure and postclosure cost estimates and any other obligations covered by a financial test.

(v) Total assets in Michigan of not less than \$50,000,000.00, excluding the value of any land used for hazardous waste disposal or have total assets in Michigan which are not less than 6 times the sum of the approved closure and postclosure cost estimates for facilities subject to these rules, whichever is larger.

(b) The owner or operator shall have all of the following:

(i) A current rating for its senior unsecured debt of AAA, AA, A, or BBB, as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's.

(ii) Tangible net worth not less than 6 times the sum of the current closure and postclosure cost estimates and any other obligations covered by a financial test.

(iii) Tangible net worth of not less than \$10,000,000.00.

(iv) Assets located in the United States amounting to not less than 90% of his or her total assets or not less than 6 times the sum of the current closure and postclosure cost estimates and any other obligations covered by a financial test.

(v) Have total assets in Michigan of not less than \$50,000,000.00, excluding the value of any land used for hazardous waste disposal, or have total assets in Michigan that are not less than six times the sum of the approved closure and postclosure cost estimates for facilities subject to these rules, whichever is larger.

(2) The phrase "current closure and postclosure cost estimates," as used in subrule (1) of this rule, means the cost estimates required under R 299.9702 and equivalent or substantially equivalent federal or state regulations. The phrase "other obligations covered by a financial test," as used in subrule (1) of this rule, means the financial assurance for solid waste management facilities under part 115 of the act and equivalent or substantially equivalent federal or state regulations, the financial assurance for injection wells under 40 C.F.R. part 144, the financial assurance for underground storage tanks under 40 C.F.R. part 280 and equivalent or substantially equivalent state regulations, the financial assurance for polychlorinated biphenol facilities regulated under 40 C.F.R. part 761 and equivalent or substantially equivalent state regulations, the financial assurance for remediation costs under part 201 of the act and equivalent federal or state regulations, and the financial assurance for corrective action under R 299.9713 and equivalent or substantially equivalent federal or state regulations.

(3) To demonstrate that he or she meets this test, the owner or operator shall submit all of the following items to the director:

(a) A letter signed by the owner or operator's chief financial officer and worded as specified by the director.

(b) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(c) A special report from the owner's or operator's independent certified public accountant to the owner or operator on comparison of the data presented in the chief financial officer's letter to the independently audited, year-end financial statements. The special report shall describe the agreed-upon procedures performed and related findings, including if there were any discrepancies found.

(4) An owner or operator of a new facility shall submit the items specified in subrule (3) of this rule to the director not less than 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of the items specified in subrule (3) of this rule, the owner or operator shall send updated information to the director within 90 days after the close of each succeeding fiscal year. This information shall consist of all items specified in subrule (3) of this rule.

(6) If the owner or operator no longer meets the requirements of subrule (1) of this rule, he or she shall send notice to the director of the intent to establish alternate financial assurance as specified in this part. The notice shall be sent, by certified mail, within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The director may, based on a reasonable belief that the owner or operator might no longer meet the requirements of subrule (1) of this rule, require reports of financial condition at any time from the owner or operator in addition to that information required of the owner or operator in subrule (3) of this rule. If the director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subrule (1) of this rule, the owner or operator shall provide alternate financial assurance as specified in this part within 30 days after notification of such a finding.

(8) The director may disallow use of a financial test to meet the requirements of this part on the basis of qualifications in the opinion expressed by the independent certified public accountant in his or her report on examination of the owner's or operator's financial statements. An adverse opinion or a disclaimer of opinion will be cause for disallowance. The director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in this rule within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in subrule (3) of this rule when one of the following occurs:

(a) An owner or operator substitutes alternate financial assurance as specified in this rule.

(b) The director releases the owner or operator from the requirements of this part in accordance with R 299.9703(5).

(10) An owner or operator may meet the requirements of this rule by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor shall be the parent corporation of the owner or operator. The guarantor shall meet the requirements for owners or operators in subrules (1) to (8) of this rule and shall comply with the terms of the corporate guarantee. The wording of the corporate guarantee shall be identical to wording provided by the director. The corporate guarantee shall accompany the items sent to the director as specified in subrule (3) of this rule. The terms of the corporate guarantee shall provide for all of the following:

(a) That if the owner or operator fails to perform final closure or postclosure care of a facility covered by the corporate guarantee in accordance with the closure and postclosure plans and other operating license requirements when required to do so, the guarantor shall do so or establish a trust fund as specified in R 299.9704 in the name of the owner or operator.

(b) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation, by certified mail, to the owner or operator and to the director. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(c) If the owner or operator fails to provide alternate financial assurance as specified in this part and obtain the written approval of such alternate assurance from the director within 90 days after receipt by the owner or operator and the director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternative financial assurance in the name of the owner or operator.

(d) In the case of corporations that are incorporated outside of Michigan, the guarantor shall identify and maintain a registered agent for service of process in Michigan.

History: 1985 AACS; 1988 AACS; 1989 AACS; 1998 AACS; 2000 AACS.

R 299.9710 Liability requirements for treatment, storage, and disposal facilities.

Rule 710. (1) An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden and accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden and accidental occurrences in an amount not less than \$1,000,000.00 per occurrence with an annual aggregate of not less than \$2,000,000.00, exclusive of legal defense costs.

(2) An owner or operator of a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit which is used to manage hazardous waste, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in an amount not less than \$3,000,000.00 per occurrence with an annual aggregate of not less than \$6,000,000.00, exclusive of legal defense costs.

(3) An owner or operator shall demonstrate the existence of the required liability coverage through any of the following:

- (a) Insurance as specified in subrule (6) of this rule.
- (b) The financial test specified in subrule (7) of this rule.
- (c) The financial test specified in subrule (8) of this rule.
- (d) The corporate guarantee specified in subrule (9) of rule.
- (e) The letter of credit specified in subrule (10) of this rule.
- (f) The trust fund specified in subrule (11) of this rule.

(4) An owner or operator may demonstrate the existence of the required liability coverage through a combination of the financial mechanisms specified in subrule (3) of this rule, except that any combination shall not include more than 1 of the financial tests specified and shall not include both a financial test and corporate guarantee. The amounts of coverage shall total at least the minimum amounts required by this rule.

(5) If more than 1 financial mechanism is used to demonstrate the existence of the required liability coverage, then the owner or operator shall specify at least 1 financial mechanism as primary coverage and shall specify the other financial mechanisms as excess coverage.

(6) An owner or operator may satisfy the liability requirements of this rule by obtaining an insurance policy as follows:

(a) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or which is eligible to provide insurance as an excess or surplus lines insurer, in the state of Michigan.

(b) Each insurance policy shall be amended by attaching an endorsement on a form provided by the director. The owner or operator shall submit, to the director, a signed

duplicate original of the endorsement, and, if requested by the director, a signed duplicate of the insurance policy.

(c) Each policy that is obtained to meet the requirements of this rule shall provide that cancellation, termination, or a material change to the policy that affects the coverages required by this rule shall not occur unless and until not less than 30 days' written notice of the cancellation, termination, or material change is first provided to the director. The notice shall be given no matter which party initiates the cancellation, termination, or material change and whether or not nonpayment of premium is involved.

(d) If the underlying policies required by subrules (1) and (2) of this rule do not provide sufficient limits of liability, the policy shall be amended by attaching an excess insurance endorsement on a form approved by the director.

(7) An owner or operator may satisfy the liability requirements of this rule by complying with the financial test requirements specified in the provisions of 40 C.F.R. §264.147(f). To demonstrate that he or she passes this test, the owner or operator shall submit all of the information required in 40 C.F.R. §264.147(f)(3) to the director. The words "regional administrator" in the provisions of 40 C.F.R. §264.151(g) shall be replaced with the word "director."

(8) An owner or operator may satisfy the liability requirements of this rule by complying with the financial test requirements specified in the provisions of R 299.9709 and both of the following provisions:

(a) The financial test criteria of R 299.9709 shall be modified as follows:

(i) In the provisions of R 299.9709(1)(a)(ii), net working capital and tangible net worth shall each be not less than 6 times the sum of the current closure and postclosure cost estimates, any other obligations covered by a financial test, and the amount of annual aggregate liability coverage.

(ii) In the provisions of R 299.9709(1)(a)(iv), assets in the United States shall be not less than 90% of the owner's or operator's total assets or not less than 6 times the sum of the current closure and postclosure cost estimates, any other obligations covered by a financial test, and the amount of annual aggregate liability coverage.

(iii) In the provisions of R 299.9709(1)(b)(ii), tangible net worth shall be not less than 6 times the sum of the current closure and postclosure cost estimates, any other obligations covered by a financial test, and the amount of annual aggregate liability coverage.

(iv) In the provisions of R 299.9709(1)(b)(iv), assets in the United States shall be not less than 90% of the owner's or operator's total assets or not less than 6 times the sum of the current closure and postclosure cost estimates, any other obligations covered by a financial test, and the amount of annual aggregate liability coverage.

(b) To demonstrate that the owner or operator passes the financial test requirements of this subrule, the owner or operator shall submit all of the information required by the provisions of R 299.9709(3) to the director.

(c) If the owner or operator no longer meets the requirements of this subrule, then he or she shall obtain alternate liability coverage as specified in this rule. Evidence of alternate liability coverage shall be submitted to the director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the financial test requirements of this subrule.

(9) An owner or operator may satisfy the liability requirements of this rule by obtaining a written guarantee for liability coverage, hereafter referred to as "corporate guarantee," as follows:

(a) The guarantor shall be the parent corporation of the owner or operator. The guarantor shall meet the requirements for owners or operators specified in subrule (7) or (8) of this rule and shall comply with the terms of the corporate guarantee.

(b) The corporate guarantee shall provide for all of the following:

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden, or both, accidental occurrences arising from the operation of facilities covered by the corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from, or alleged to have arisen from, such injury or damage, then the guarantor will satisfy the judgment or pay the settlement amount up to the limits of coverage.

(ii) The guarantor shall make payment of third-party liability awards and settlements upon presentation of a certification of a valid claim or a valid final court order that establishes a judgment against the owner or operator for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the facilities covered by the corporate guarantee.

(iii) The liability coverage shall not apply to the exclusions specified in the provisions of subrule (12) of this rule.

(iv) The corporate guarantee shall remain in force unless the guarantor sends a notice of cancellation, by certified mail, to the owner or operator and to the director. Cancellation shall not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(v) The corporate guarantee shall not be terminated unless the owner or operator obtains, and the director approves, alternate liability coverage as specified in this rule.

(vi) The guarantor shall obtain alternate liability coverage as specified in this rule in the name of the owner or operator, unless the owner or operator has done so, within 30 days after being notified by the director that the guarantor no longer meets the financial test criteria or that the guarantor is disallowed from continuing as guarantor, and within 120 days after the end of any fiscal year before termination of the guarantee in which the guarantor fails to meet the financial test criteria.

(c) The wording of the corporate guarantee shall be identical to the wording specified by the director.

(d) The corporate guarantee shall accompany the items sent to the director as specified in subrule (7) or (8) of this rule.

(e) If a corporation is incorporated outside of Michigan, then a guarantee may be used to satisfy the requirements of this rule only if the non-Michigan corporation has identified a registered agent for service of process in Michigan.

(f) The director shall agree to termination of the guarantee if either of the following occurs:

(i) The owner or operator or guarantor substitutes alternate financial assurance as specified in this rule.

(ii) The director releases the owner or operator from the liability requirements in accordance with the provisions of subrule (16) of this rule.

(10) An owner or operator may satisfy the liability requirements of this rule by obtaining an irrevocable letter of credit for liability coverage as follows:

(a) The issuing institution shall be a bank or financial institution which has the authority to issue letters of credit and which has its letter of credit operations regulated and examined by a federal or state agency.

(b) The letter of credit shall provide for both of the following:

(i) The financial institution shall deposit amounts designated by the trustee, up to the amount of the letter of credit, into a standby trust fund upon presentation of a sight draft.

(ii) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The expiration date shall be automatically extended for a period of at least 1 year unless, not less than 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the director, by certified mail, of a decision not to extend the expiration date. The 120 days shall begin on the date when both the owner or operator and the director receive the notice, as evidenced by the return receipts.

(c) The wording of the letter of credit shall be identical to the wording specified by the director.

(d) The director shall agree to termination of the letter of credit when either of the following occurs:

(i) The owner or operator substitutes alternate financial assurance as specified in this rule.

(ii) The director releases the owner or operator from the liability requirements in accordance with the provisions of subrule (16) of this rule.

(e) An owner or operator who uses a letter of credit to satisfy the requirements of this rule shall establish a standby trust fund in accordance with both of the following provisions:

(i) The trustee shall be a bank or other financial institution which has the authority to act as trustee and which has its trust operations regulated and examined by a state or federal agency.

(ii) The trust fund shall provide for all of the following:

(A) The trustee shall satisfy third-party liability claims by drawing on the letter of credit and by making payments from the fund upon presentation of a certification of a valid claim or a valid final court order that establishes a judgment against the owner or operator for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the facilities covered by the trust fund.

(B) The liability coverage shall not apply to the exclusions specified in the provisions of subrule (12) of this rule.

(C) The trust shall be irrevocable and shall continue until terminated pursuant to the written agreement of the owner or operator, the trustee, and the director or until terminated by the trustee and the director if the owner or operator ceases to exist.

(D) The wording of the trust agreement shall be identical to the wording specified by the director.

(f) The director shall agree to termination of the standby trust if either of the following occurs:

(i) The owner or operator substitutes alternate financial assurance as specified in this rule.

(ii) The director releases the owner or operator from the liability requirements in accordance with the provisions of subrule (16) of this rule.

(g) The owner or operator shall submit a copy of the letter of credit and a signed duplicate original of the standby trust agreement to the director.

(h) If the owner or operator does not establish alternate liability coverage as specified in this rule and obtain written approval of the alternate coverage from the director within 90 days after receipt, by both the owner or operator and the director, of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, then the director shall notify the trustee and the trustee shall draw on the letter of credit and deposit the proceeds of the letter of credit into the standby trust fund.

(11) An owner or operator may satisfy the liability requirements of this rule by obtaining a trust fund for liability coverage as specified in the following provisions and submitting a signed duplicate original of the trust agreement to the director:

(a) The trustee shall be a bank or other financial institution which has the authority to act as trustee and which has its trust operations regulated and examined by a state or federal agency.

(b) The trust fund shall be funded for the full amount of liability coverage to be provided by the trust fund. After the trust fund is established, if the trust fund amount is reduced below the full amount of liability coverage to be provided by the trust fund, then the owner or operator shall make payment to the trustee to cause the value of the trust fund to at least equal the full amount of liability coverage to be provided by the trust fund. The payments shall be made before the anniversary date of the establishment of the fund.

(c) The trust fund shall provide for all of the following:

(i) The trustee shall make payment of third-party liability awards and settlements, up to the value of the fund, upon presentation of a certification of a valid claim or a valid final court order that establishes a judgment against the owner or operator for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the facilities covered by the trust fund.

(ii) The liability coverage shall not apply to the exclusions specified in the provisions of subrule (12) of this rule.

(iii) The trust shall be irrevocable and shall continue until terminated pursuant to the written agreement of the owner or operator, the trustee, and the director or until terminated by the trustee and the director if the owner or operator ceases to exist.

(d) The wording of the trust agreement shall be identical to the wording specified by the director.

(e) The director shall agree to termination of the trust if either of the following occurs:

(i) The owner or operator substitutes alternate financial assurance as specified in this rule.

(ii) The director releases the owner or operator from the liability requirements in accordance with the provisions of subrule (16) of this rule.

(12) The liability coverages provided by the corporate guarantee, letter of credit, and trust fund pursuant to the provisions of this rule shall not apply to any of the following categories of damages or obligations:

(a) Bodily injury or property damage for which the owner or operator is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages which the owner or operator would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of the owner or operator pursuant to a worker's compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to an employee of the owner or operator arising from, and in the course of, employment by the owner or operator, or bodily injury to the spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of, employment by the owner or operator. This exclusion applies whether the owner or operator may be liable as an employer or in any other capacity and applies to any obligation to share damages with or repay another person who must pay damages because of injury to the employee or the spouse, child, parent, brother, or sister of the employee.

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft.

(e) Property damage to any of the following:

(i) Any property that is owned, rented, or occupied by the owner or operator.

(ii) Premises that are sold, given away, or abandoned by the owner or operator if the property damage arises out of any part of the premises.

(iii) Property that is loaned to the owner or operator.

(iv) Personal property in the care, custody, or control of the owner or operator.

(v) The part of real property on which the owner, operator, or any contractor or subcontractor who is working directly or indirectly on behalf of the owner or operator are performing operations, if the property damage arises out of these operations.

(13) An owner or operator shall notify the director, in writing, within 30 days, if any of the following conditions occur:

(a) A claim results in a reduction in the amount of financial responsibility for liability coverage provided by a financial mechanism authorized in subrule (3) of this rule.

(b) A certification of valid claim for bodily injury or property damages caused by a sudden or nonsudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and a third-party claimant for liability coverage pursuant to the provisions of this rule.

(c) A final court order that establishes a judgment for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or a financial mechanism for liability coverage pursuant to the provisions of this rule.

(14) An owner or operator shall continuously provide liability coverage for a facility as required by this rule until certifications of closure of the facility as specified in the provisions of R 299.9613(3) are received by the director and the director notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for closure pursuant to the provisions of R 299.9703(5).

(15) The director may adjust the levels of financial responsibility required by this rule for the reasons specified in the provisions of 40 C.F.R. §264.147(c) and (d). Any adjustment to the level or type of coverage for a facility that has an operating license shall be treated as an operating license modification pursuant to the provisions of R 299.9519.

(16) Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the director shall notify the owner or operator, in writing, that the owner or operator is no longer required by this rule to maintain liability coverage for that facility, unless the director has reason to believe that closure has not been in accordance with the approved closure plan.

(17) If all other hazardous waste management units at the facility which are subject to a liability coverage requirement under this rule are closed, or if the closure process under part 6 of these rules has been initiated for all other hazardous waste management units that are subject to a liability coverage requirement, then the director may replace all or part of that liability coverage requirement for a hazardous waste management unit with alternative requirements under R 299.9713 if the director does all of the following:

(a) Prescribes alternative requirements for the hazardous waste management unit under 40 C.F.R. §§264.90(f) or 264.110(c).

(b) Determines that it is not necessary to apply the requirements of this rule because the alternative financial assurance requirements will protect human health and the environment.

(c) Specifies the alternative requirements in an operating license or enforceable document.

(18) The provisions of 40 C.F.R. §§264.90(f), 264.110(d), 264.147(c), (d), and (f) and 264.151(g) are adopted by reference in R 299.11003.

History: 1985 AACS; 1988 AACS; 1991 AACS; 1994 AACS; 2000 AACS; 2008 AACS.

R 299.9711 Financial capability requirements for transporters operating a transfer facility or group of transfer facilities.

Rule 711. (1) A transporter who operates a transfer facility or group of transfer facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden and accidental occurrences arising from the operations of the facility or group of facilities. The transporter shall have and maintain liability coverage for sudden and accidental occurrences in an amount not less than \$500,000.00 per occurrence, exclusive of legal defense costs. The requirement for liability coverage is in addition to any other insurance requirements of sections 3101 and

3102 of act 218. The transporter shall comply with the liability coverage requirements of this subrule by obtaining an insurance policy in accordance with the provisions of subrule (2) of this rule or by passing the financial test specified in the provisions of subrule (3) of this rule.

(2) Each insurance policy that is obtained by a transporter to fulfill the requirements of this rule shall be in compliance with all of the following provisions:

(a) The policy shall include a provision that the insurer notify the director 30 days before either of the following:

(i) Cancellation or termination of the insurance by either party for any reason.

(ii) A material change to the policy for any reason.

(b) The policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or which is eligible to provide insurance as an excess or surplus line insurer, in the state of Michigan.

(c) The deductible written into the policy shall not be more than 5% of the per occurrence limit of liability of the policy. If more than one policy is used to provide the coverage required by this rule, the total of all deductibles shall not be more than 5% of the total of the per occurrence limits of the policies used.

(d) The policy shall be amended by attaching an endorsement on a form provided by the director.

(3) A transporter may satisfy the liability coverage requirements of this rule by demonstrating that he or she passes a financial test as specified in this rule. To pass the test, the owner or operator shall meet the criteria of either subdivision (a) or (b) of this subrule as follows:

(a) A transporter shall comply with all of the following provisions:

(i) Have a net working capital and a tangible net worth which, for each, is not less than six times the amount of liability coverage to be demonstrated by the test.

(ii) Have a tangible net worth of not less than \$10,000,000.00.

(iii) Have assets in the United States that amount to not less than 90% of his or her total assets or not less than 6 times the amount of liability coverage to be demonstrated by the test.

(b) A transporter shall comply with all of the following provisions:

(i) Have a current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by standard and poor's or Aaa, Aa, A, or Baa as issued by moody's.

(ii) Have tangible net worth of not less than \$10,000,000.00.

(iii) Have a tangible net worth that is not less than 6 times the amount of liability coverage to be demonstrated by the test.

(iv) Have assets in the United States that amount to not less than 90% of his or her total assets or not less than 6 times the amount of liability coverage to be demonstrated by the test.

(c) The phrase "amount of liability coverage" as used in this subrule refers to the annual aggregate amounts for which coverage is required pursuant to the provisions of subrule (1) of this rule.

(4) A transporter shall demonstrate the existence of the liability coverage required pursuant to this rule by submitting either of the following to the director:

(a) All information that is necessary to meet the financial test requirements of subrule (3) of this rule, as follows:

(i) A letter which is signed by the transporter's chief financial officer and which is worded as specified by the director.

(ii) A copy of the independent certified public accountant's report upon examining the transporter's financial statements for the latest completed fiscal year.

(iii) A special report from the transporter's independent certified public accountant to the transporter on comparison of the data presented in the chief financial officer's letter to the independently-audited, year-end financial statements. The special report shall describe the agreed-upon procedures performed and related findings, including whether or not there were any discrepancies found.