

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF WASTE MANAGEMENT AND RADIOLOGICAL PROTECTION
HAZARDOUS WASTE MANAGEMENT

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(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 Nos. 1995-16, 2009-31, and 2011-1, 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, 324.99903, 324.99919, and 324.99921)

R 299.9102 to R 299.9105, R 299.9107 to R 299.9109, R 299.9202 to R 299.9206, R 299.9212, R 299.9217, R 299.9220, R 299.9224 to R 299.9227, R 299.9231, R 299.9304, R 299.9307, R 299.9409, R 299.9502, R 299.9506, R 299.9519, R 299.9525, R 299.9607, R 299.9608, R 299.9612, R 299.9621, R 299.9629, R 299.9801, R 299.9808, R 299.9822, and R 299.11001 to R 299.11006 of the Michigan Administrative Code are amended, R 299.9232 to R 299.9234 are added to the Code, and R 299.9230 of the Code is rescinded:

PART 1. GENERAL PROVISIONS

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) "Carbon dioxide stream" means carbon dioxide that has been captured from an emission source such as a power plant, including incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process.

(bc) "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.

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

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

(ef) "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.

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

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

(hi) "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.")

(ij) "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.

(jk) "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.

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

(lm) "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.

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

(no) "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.

(op) "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.

(pq) "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) "Contained" as it relates to hazardous secondary materials that are legitimately recycled under R 299.9232, means held in a unit, including a land-based unit, which meets all of the following criteria:

(i) The unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for materials, to prevent releases of the materials to the environment. Unpermitted releases are releases that are not covered by a permit, such as a permit to discharge to water or air, and may include releases through surface transport by precipitation runoff, releases to the soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic failures.

(ii) The unit is properly labeled or otherwise has a system, such as a log, to immediately identify the hazardous secondary materials in the unit.

(iii) The unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions.

(iv) Hazardous secondary materials in units that meet the applicable requirements of Part 6 of these rules are presumptively contained.

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

(rt) "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.

(su) "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.

(tv) "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.

~~(uw)~~ "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.

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

(y) "CRT exporter" means any person in the United States who initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for such export.

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

~~(xaa)~~ "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.

~~(ybb)~~ "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 this state, 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(7) and (8) 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.

~~(zcc)~~ "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.

~~(aadd)~~ "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.

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

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

(~~ddgg~~) "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.

(~~eehh~~) "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.

(~~ffii~~) "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.

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

(~~hhkk~~) "DOD" means the United States ~~e~~Department of ~~e~~Defense.

(~~ll~~) "**DOE**" means the United States Department of Energy.

(~~mm~~) "DOT" means the United States ~~e~~Department of ~~t~~Transportation.

(~~jjnn~~) "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.

(~~kkoo~~) "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 dripage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

R 299.9103 Definitions; E, F.

Rule 103. As used in these rules:

(a) "Electronic manifest" or "e-manifest" means the electronic format of the hazardous waste manifest that is obtained from the EPA's national e-manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22 and 8700-22A.

(b) "Electronic manifest system" or "e-manifest system" means EPA's national information technology system through which the electronic manifest may be obtained, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

(~~ac~~) "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.

(~~bd~~) "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.

(~~ce~~) "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.

(~~df~~) "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 assess or sue to recover in court civil penalties, including fines, for violations of the requirements of these documents.

(eg) "EPA" means the United States Environmental Protection Agency.

(fh) "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.

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

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

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

(jl) "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.

(km) "Existing facility" means a treatment, storage, or disposal facility that either received all necessary state-issued environmental permits or licenses 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 permits or licenses.

(ln) "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.

(mo) "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.

(np) "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.

(~~eq~~) "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.

(~~pr~~) "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.

(~~qs~~) "Facility" means all contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste, **or for managing hazardous secondary materials prior to reclamation**. 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.

(~~rt~~) "Facility mailing list" means the mailing list for a facility that is maintained by the department pursuant to 40 C.F.R. §124.101(1)(ix).

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

(~~tv~~) "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.

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

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

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

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

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

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

(~~aacc~~) "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.

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

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

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

(~~ee~~gg) "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.

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

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

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

R 299.9104 Definitions; G to I.

Rule 104. As used in these rules:

(a) ~~"Gasification" means a process, conducted in an enclosed device or system, designed and operated to process petroleum feedstock, including oil-bearing hazardous secondary materials through a series of highly controlled steps utilizing thermal decomposition, limited oxidation, and gas cleaning to yield a synthesis gas composed primarily of hydrogen and carbon monoxide gas.~~

(~~b~~) "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.

(~~cb~~) "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.

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

(~~d~~) **"Hazardous secondary material" means a secondary material such as a spent material, by-product, or sludge that, when discarded, would be identified as hazardous waste under part 2 of these rules.**

(~~e~~) **"Hazardous secondary material generator" means a person whose act or process produces hazardous secondary materials at the generating facility. For the purpose of this definition, a generating facility includes all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator.**

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

(~~fg~~) "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.

(~~gh~~) "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.

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

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

(~~jk~~) "Home scrap metal" means scrap metal as generated by steel mills, foundries, and refineries

such as turnings, cuttings, punchings, and borings.

(kl) "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.

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

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

(no) "Inactive portion" means that portion of a facility that is not operated after November 19, 1980. (See also "active portion" and "closed portion.")

(op) "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.

(pq) "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.

(qr) "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.

(rs) "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.

(st) "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.

(~~tu~~) "Infrared incinerator" means any enclosed device ~~which~~that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and ~~which~~that is not listed as an industrial furnace.

(~~uv~~) "In-ground tank" means a device ~~which~~that satisfies the definition of "tank" specified in R 299.9108(a) and ~~which~~that 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.

(~~vw~~) "Injection well" means a well into which fluids are injected. (See also "underground injection.")

(~~wx~~) "Inner liner" means a continuous layer of material ~~which~~that 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.

(~~xy~~) "In operation" means that a facility is treating, storing, or disposing of hazardous waste.

(~~yz~~) "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.

(aa) "Intermediate facility" means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of such material.

(~~zbb~~) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

R 299.9105 Definitions; L to N.

Rule 105. As used in these rules:

(a) "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 lamps include incandescent, fluorescent, high intensity discharge, sodium vapor, mercury vapor, and neon lamps.

(b) "Land-based unit" means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

(~~bc~~) "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.

"Land disposal" 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. "Land disposal" does not include ocean disposal.

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

(~~de~~) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land. "Landfill" 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.

(~~ef~~) "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.

(~~fg~~) "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.

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

(~~hi~~) "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.

(~~ij~~) "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.

(~~jk~~) "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.

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

(~~lm~~) "Low-level radioactive waste" or "LLRW" means a radioactive waste ~~which~~that 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.

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

(~~no~~) "Manifest" means the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, **or the electronic manifest, which is** originated and signed ~~by the generator or offeror~~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.

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

(~~pq~~) "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.

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

(~~rs~~) "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 ~~eCoast gGuard~~, the **DOE** ~~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 **DOE** ~~department of energy's~~ nuclear weapons program after all required sanitization operations under the atomic energy act of 1954, as amended, have been compiled.

(~~st~~) "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.

(~~tu~~) "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.

(~~uv~~) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of. "Miscellaneous unit" 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.

(~~vw~~) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(~~wx~~) "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.

(~~xy~~) "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 **DOE** ~~United States department of energy~~, as authorized by the atomic energy act of 1954, as amended, under **DOE** ~~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.

(yz) "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.

(zaa) "NFPA" means the National Fire Protection Association.

(bb) "No free liquids" as used in R 299.9204, means that solvent-contaminated wipes may not contain free liquids as determined by Method 9095B, the Paint Filter Liquids Test, included in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA publication SW-846 or by another standard or test method approved by the director, and that there is no free liquid in the container holding the wipes.

(aac) "NRC" means the United States Nuclear Regulatory Commission.

(bdd) "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.

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. **For the purpose of R 299.9204(1)(aa) and (bb), smelting, melting, and refining furnances are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the same requirements as those specified for metals recovery from hazardous waste of 40 C.F.R. §266.100(d)(1)-(3), and if the residuals meet the requirements of R 299.9808.**

(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) "Remanufacturing" means processing higher-value secondary material in order to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For the purpose of this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade

material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

(ij) "Remedial action plan" or "RAP" means a special form of an operating license that a facility owner or operator may obtain instead of an 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.

(jk) "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.

(kl) "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.

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

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

(no) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

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

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

(qr) "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.

(rs) "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.

(t) "Sham recycling" means recycling that is not legitimate recycling as outlined in R 299.9232. A hazardous secondary material found to be sham recycled is considered discarded and a waste.

(su) "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.

(tv) "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.

(uw) "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.

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

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

(z) "Solvent-contaminated wipe" means a wipe that, after use or after cleanup of a spill, meets any of the following criteria:

(i) Contains 1 or more of the F001 through F005 solvents listed in R 299.9220 or the corresponding P- or U-listed solvents found in R 299.9224, R 299.9225, or R 299.9226.

(ii) Exhibits a hazardous characteristic as defined in R 299.9212 and that characteristic results from a solvent listed in part 2 of these rules.

(iii) Exhibits only the hazardous characteristic of ignitability as defined in R 299.9212 due to the presence of 1 or more solvents that are not listed in part 2 of these rules.

Solvent-contaminated wipes that contain listed hazardous wastes other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions in R 299.9204(1)(z) and (2)(q).

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

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

(zcc) "Speculative accumulation" means accumulation before recycle. A material is not accumulated speculatively, however, if the person accumulating the material shows that **both all** 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.

(iii) For hazardous secondary materials being to be recycled under R 299.9232, R 299.9233, or R 299.9234, the material is placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period shall be documented through an inventory log or other appropriate method.

(aadd) "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.

(bbee) "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.

(ceff) "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.

(dggg) "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.

(eehh) "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.

(ffii) "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.

(g) "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.

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 **or hazardous secondary materials** 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 an operating license 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.

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) "USGS" means the United States Geological Survey.**
- (q) "USPS" means the United States Postal Service.**
- (pr) "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.
- (qs) "Used oil aboveground tank" means a tank ~~which~~that 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.
- (ft) "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.
- (su) "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.
- (tv) "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.

(~~uw~~) "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.

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

(~~wy~~) "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).

(~~xz~~) "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.

(~~yaa~~) "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.

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

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

(~~bbdd~~) "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.

(~~ccee~~) "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.

(ff) "User of the electronic manifest system" means a generator, a transporter, an owner or operator of a hazardous waste or recycling facility, or any other person that is required to use a manifest to comply with any federal or state requirement to track the shipment, transportation, and receipt of either hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal, or rejected hazardous wastes or regulated container residues that are shipped from a designated facility to an alternative facility or returned to the generator and satisfies 1 or both of the following requirements:

(i) Elects to use the electronic manifest system to obtain, complete, and transmit an electronic manifest format supplied by the system.

(ii) Elects to use the paper manifest form and submits to the electronic manifest system for data processing purposes a paper copy of the manifest, or the data from such paper copy, in accordance with 40 C.F.R. §§264.71(a)(2)(v) or 265.71(a)(2)(v). These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

~~(ddg)~~ "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.

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

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

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

~~(hkk)~~ "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.

~~(iil)~~ "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.

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

~~(kkn)~~ "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.

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

(pp) "Wipe" means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

~~(mmqq)~~ "Zone of engineering control" means an area ~~which~~that is under the control of the owner or operator and ~~which~~that, 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.

PART 2. IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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, **but not recycled**, before or instead of being abandoned by being disposed of, burned, or incinerated; **or sham recycled**.

(b) A material ~~which~~**that** is recycled, or accumulated, stored, or treated before recycling, and ~~which~~**that** 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), **(aa), (bb), and (cc)**.

(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 299.9222.

(c) Scrap metal that is not excluded under R 299.9204.

(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.

(d) Hazardous secondary materials that are reclaimed in a continuous industrial process.

(e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate.

(f) Hazardous secondary materials that are transferred for reclamation under R 299.9204(1)(aa) and are managed at a verified reclamation facility or at an intermediate facility where the management of the hazardous secondary materials is not addressed under an operating license under these rules or under the standards for interim status facility owners or operators under Part 6 of these rules.

(7) The director shall use the **standards**, criteria, and procedures outlined in 40 C.F.R. §§260.31, ~~and~~ 260.33, **and 260.34** for making determinations under subrule (6) of this rule.

(8) Persons receiving a variance or determination under subrule (6) of this rule shall comply with the notification requirements of 40 C.F.R. §260.42.

(89) The provisions of 40 C.F.R. §§260.31, 260.33, 260.34, 260.42, 261.31, 261.32, and 261.33 are adopted by reference in R 299.11003, with the exception that "director" shall replace "regional administrator;" **and "administrator," "waste" shall replace "solid waste," "R 299.9202" shall replace references to "261.2," "R 299.9204" shall replace references to "264.4," "R 299.9204(1)(aa)" shall replace references to "261.4(a)(24)," and "Michigan site**

identification form, form EQP5150" shall replace references to "EPA Form 8700-12."

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 subrule (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 it receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if he or she 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, he or she 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 he or she 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, he or she 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 it receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if he or she 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, he or she 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 it receives confirmation that the sampling and analysis plan has been received by the director. The director may reject the sampling and analysis plan if he or she 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, he or she 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 K061, 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 R 299.9213:

(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)(~~hi~~) 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.

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) Nonwastewater 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, ~~gasification~~, 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)(hi), 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 not 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 not 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.

(~~yx~~) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under subdivision (~~xw~~) 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. The manufacturer shall 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.

(zy) 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 R 299.9231(3).

(z) Solvent-contaminated wipes that are sent for cleaning and reuse are not wastes at the point of generation if all of the following requirements are met:

(i) The wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers must be able to contain free liquids, if free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove wipes. When the container is full, the wipes are no longer being accumulated, or the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions.

(ii) The wipes shall not be accumulated by the generator for more than 180 days from the start date of accumulation for each container prior to being sent for cleaning.

(iii) At the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the wipes shall contain no free liquids.

(iv) Free liquids removed from the wipes or from the container holding the wipes shall be managed in accordance with these rules.

(v) Generators shall maintain at their site all of the following:

(A) The name and address of the laundry or dry cleaner that is receiving the wipes.

(B) Documentation that the 180-day accumulation time limit in paragraph (ii) of this subdivision is being met.

(C) A description of the process the generator is using to ensure that the wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning.

(vi) The wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the federal clean water act.

(aa) Hazardous secondary material that is generated and legitimately reclaimed within the United States or its territories and under the control of the generator, if all of the following requirements are met:

(i) The hazardous secondary material is generated and reclaimed in accordance with any of the following conditions:

(A) It is reclaimed at the generating facility. For the purpose of this requirement, the generating facility means all contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator.

(B) It is reclaimed at a different facility, which is controlled by the generator, and the generator provides the following certification to the department: "On behalf of [insert generating facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaiming facility name], which is controlled by [insert generating facility name] and that [insert name of either generating or reclaiming facility name] has acknowledged full responsibility for the safe management of the secondary hazardous material."

(C) It is reclaimed at a different facility and both the generating facility and the reclaiming facility are controlled by the same person, and the generator provides the following certification to the department: "On behalf of [insert generating facility name], I certify that this facility will send the indicated hazardous secondary material to [insert reclaiming facility name], that both facilities are under common control, and that [insert name of either generating or reclaiming facility name] has acknowledged full responsibility for the safe management of the secondary hazardous material." For the purpose of this requirement, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person shall not be deemed to "control" such facilities. The generating and reclaiming facilities shall both maintain at their facilities for not less than 3 years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under this exclusion. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(D) The hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor if the tolling contractor certifies the following: "On behalf of [insert tolling contractor name], I certify that [insert tolling contractor name] has a written contract with [insert toll manufacturer name] to manufacture [insert name of product or intermediate] which is made from specified unused materials, and that [insert tolling contractor name] will reclaim the hazardous secondary materials generated during this manufacture. On behalf of [insert tolling contractor name], I also certify that [insert tolling contractor name] retains ownership of, and responsibility for, the hazardous secondary materials that are generated during the course of the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process." The tolling contractor shall maintain at its facility for not less than 3 years records of hazardous secondary materials received pursuant to its written contract with the toll manufacturer, and the toll manufacturer shall maintain at its facility for not less than 3 years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary materials shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt. For the purpose of this requirement, "tolling contractor" means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer and "toll manufacturer" means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

(ii) The hazardous secondary material is contained. A hazardous secondary material that is released to the environment is discarded and a waste unless it is immediately recovered for the purpose of reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a waste.

(iii) The hazardous secondary material is not speculatively accumulated.

(iv) A notification is provided in accordance with 40 C.F.R. §260.42.

(v) The hazardous secondary material is not otherwise subject to material-specific management conditions under subrule (1) of this rule when reclaimed, and it is not a spent lead-acid battery.

(vi) A person performing the recycling of hazardous secondary materials under this exclusion shall maintain documentation of their legitimacy determination on-site. The

documentation shall include a written description of how the recycling meets all 4 factors in R 299.9232 and be maintained for 3 years after the recycling operation has ceased.

(vii) The emergency preparedness and response requirements of R 299.9234.

(bb) Hazardous secondary material that is generated and then transferred to a verified reclamation facility for the purpose of reclamation if all of the following requirements are met:

(i) The hazardous secondary material is not speculatively accumulated.

(ii) The hazardous secondary material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility, or a reclaimer, and while in transport, is not stored for more than 10 days at a transfer facility and is packaged in accordance with applicable DOT regulations in 49 C.F.R. parts 173, 178, and 179.

(iii) The hazardous secondary material is not otherwise subject to material-specific management conditions under subrule (1) of this rule when reclaimed, and it is not a spent lead-acid battery.

(iv) The reclamation of the hazardous secondary material is legitimate as outlined in R 299.9232.

(v) The hazardous secondary material generator meets all of the following conditions:

(A) The hazardous secondary material is contained. A hazardous secondary material that is released to the environment is discarded and a waste unless it is immediately recovered for the purpose of recycling. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a waste.

(B) The hazardous secondary material generator shall arrange for transport of hazardous secondary materials to a verified reclamation facility or facilities in the United States. A "verified reclamation facility" is a facility that has been granted a variance under 40 C.F.R. §260.31(d), or a reclamation facility where the management of the hazardous secondary material is addressed under an operating license issued pursuant to these rules or by the interim status facility standards under part 6 of these rules. If the hazardous secondary material will be passing through an intermediate facility, the intermediate facility shall have been granted a variance under 40 C.F.R. §260.31(d) or the management of the hazardous secondary material shall be addressed under an operating license issued pursuant to these rules or by the interim status standards under part 6 of these rules, and the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the material is sent to the reclamation facility identified by the generator.

(C) The hazardous secondary material generator shall maintain at the generating facility for not less than 3 years records of all off-site shipments of hazardous secondary materials. For each shipment, these records shall, at a minimum, include the name of the transporter and date of the shipment, the name and address of each reclaimer, and if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent, and the type and quantity of hazardous secondary material in the shipment.

(D) The hazardous secondary material generator shall maintain for not less than 3 years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for all off-site shipments of secondary hazardous material. Confirmation of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary material received, and the date which the hazardous secondary material was received. This requirement may be satisfied with routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(E) The emergency preparedness and response requirements of R 299.9234.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities meet all of the following conditions:

(A) The reclaimer and intermediate facility shall maintain at its facility for not less than 3 years records of all shipments of hazardous secondary material that were received at the facility and, if applicable, for all shipments of hazardous secondary material that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall, at a minimum, include the name of the transporter and date of the shipment, the name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility which the hazardous secondary material was received from, the type and quantity of hazardous secondary material in the shipment, and for hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the subsequent reclaimer, and if applicable, the name and address of each intermediate facility to which the hazardous secondary material was sent.

(B) The intermediate facility shall send the hazardous secondary material to the reclaimer or reclaimers designated by the hazardous secondary material generator.

(C) The reclaimer and intermediate facility shall send the hazardous secondary material generator confirmations of receipt for all off-site shipments of hazardous secondary material. Confirmations of receipt shall include the name and address of the reclaimer or intermediate facility, the type and quantity of hazardous secondary material received, and the date which the hazardous secondary material was received. This requirement may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(D) The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that employed for analogous raw material and that is contained. An "analogous raw material" is a raw material for which a hazardous secondary material is a substitute and serves the same function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes shall be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to part 2 of these rules, or they themselves are specifically listed in part 2 of these rules, the residuals are hazardous waste and shall be managed in accordance with the applicable requirements of these rules.

(F) The reclaimer and intermediate facility shall have financial assurance as required under part 7 of these rules.

(G) The reclaimer and intermediate facility shall have been granted a variance under 40 C.F.R. §260.31(d) or have an operating license issued pursuant to these rules or comply with the interim status standards under part 6 of these rules that address the management of the hazardous secondary materials.

(vii) All persons claiming the exclusion under this subdivision shall provide notification as required under 40 C.F.R. §260.42.

(cc) Hazardous secondary material that is generated and then transferred to another person for the purpose of remanufacturing if all of the following requirements are met:

(i) The hazardous secondary material consists of 1 or more of the following spent solvents:

- (A) Toluene.
- (B) Xylenes.
- (C) Ethylbenzene.
- (D) 1,2,4-trimethylbenzene.
- (E) Chlorobenzene.
- (F) n-hexane.

- (G) Cyclohexane.
- (H) Methyl tert-butyl ether.
- (I) Acetonitrile.
- (J) Chloroform.
- (K) Chloromethane.
- (L) Dichloromethane.
- (M) Methyl isobutyl ketone.
- (N) NN-dimethylformamide.
- (O) Tetrahydrofuran.
- (P) n-butyl alcohol.
- (Q) Ethanol.
- (R) Methanol.

(ii) The hazardous secondary material originated from using 1 or more of the solvents listed in paragraph (i) of this subdivision in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or paints and coatings manufacturing (NAICS 325510) sectors.

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in paragraph (i) of this subdivision to a remanufacturer in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or paints and coatings manufacturing (NAICS 325510) sectors.

(iv) After manufacturing 1 or more of the solvents listed in paragraph (i) of this subdivision, the use of the remanufactured solvent is limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or paints and coatings manufacturing (NAICS 325510) sectors or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the chemical data reporting rule of the toxic substances control act, 40 C.F.R. parts 704, 710, and 711, including industrial function codes U015 (solvents consumed in a reaction to produce other chemicals and U030 (solvents become part of the mixture).

(v) After remanufacturing 1 or more of the solvents listed in paragraph (i) of this subdivision, the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces or other articles. These disallowed continuing uses correspond to chemical functional uses in industrial function code U029 under the chemical data reporting rule of the toxic substances control act.

(vi) Both the hazardous secondary material generator and the remanufacturer shall do all of the following:

(A) Notify the EPA or the director and update the notification every 2 years pursuant to 40 C.F.R. §260.42

(B) Develop and maintain an up-to-date remanufacturing plan which identifies all of the following:

(1) The name, address, and site identification number of the generator and the remanufacturer.

(2) The types and estimated annual volumes of spent solvents to be remanufactured.

(3) The processes and industry sectors that generate the spent solvents.

(4) The specific uses and industry sectors for the remanufactured solvents.

(5) A certification statement from the remanufacturer stating "On behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under

pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), or paints and coatings manufacturing (NAICS 325510) sectors, and will accept the spent solvents for the sole purpose of remanufacturing into commercial-grade solvents that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, or for use as a product ingredient. I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate clean air act regulations under 40 C.F.R. parts 60, 61, or 63, or, absent such clean air act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 40 C.F.R. part 261, subparts AA, BB, and CC.

(C) Maintain records of shipments and confirmations of receipts for a period of 3 years from the dates of the shipments.

(D) Prior to remanufacturing, store the hazardous spent solvents in tanks or containers that meet the technical standards R 299.9233(1) and (2), with the tanks and containers being labeled or otherwise having immediately available record of the material being stored.

(E) During remanufacturing, and during storage of the hazardous secondary material prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate clean air act regulations under 40 C.F.R. parts 60, 61, or 63, or, absent such clean air act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in 40 C.F.R. part 261, subparts AA, BB, and CC.

(F) Meet the requirements prohibiting speculative accumulation pursuant to R 299.9107.

(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) The following wastes that are generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in

subdivision (d) of this subrule, except as provided by 40 C.F.R. §266.112 for facilities that burn or process hazardous waste:

(i) Coal pile run-off. For the purpose of subdivision (d) of this subrule, coal pile run-off means any precipitation that drains off of coal piles.

(ii) Boiler cleaning solutions. For the purposes of subdivision (d) of this subrule, boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.

(iii) Boiler blowdown. For the purposes of subdivision (d) of this subrule, boiler blowdown means water purged from boilers used to generate steam.

(iv) Process water treatment and demineralizer regeneration wastes. For the purposes of subdivision (d) of this subrule, process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

(v) Cooling tower blowdown. For the purposes of subdivision (d) of this subrule, cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

(vi) Air heater and precipitator washes. For the purposes of subdivision (d) of this subrule, air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.

(vii) Effluents from floor and yard drains and sumps. For the purposes of subdivision (d) of this subrule, effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant.

(viii) Wastewater treatment sludges. For the purposes of subdivision (d) of this subrule, wastewater treatment sludges means sludges that are generated from the treatment of wastewaters specified in paragraphs (i) to (vi) of this subdivision.

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

(fg) 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.

(gh) The following specific wastes that ~~meet are in compliance with~~ the standards in subdivision (fg) 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, **include the following**:

(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, **including waste scrap leather from automotive seat design activities.**
- (viii) Wastewater treatment sludges from the production of TiO₂ pigment using chromium-bearing ores by the chloride process.
- (ix) Ink generated by ~~the United States postal service-USPS~~ in its automated facer canceled systems.
- (x) Boiler chemical cleaning waste from electric utility boiler maintenance using water and tetra ammonium ethylene diamine tetra acetic acid, which is also known as ammoniated EDTA.**
- (hi)** 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.

(j) Mixtures of a waste that is excluded from regulation pursuant to subdivision (hi) 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.

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

(kl) 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.

(lm) 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.

(mn) 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.

(no) 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.

(ep) 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 section 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 (ep) of this subrule after the emergency ends.

(q) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous waste at the point of generation if all of the following requirements are met:

(i) The wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, if free liquids occur. During accumulation, a container is considered closed when there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove wipes. When the container is full, the wipes are no longer being accumulated, or the container is being transported, the container shall be sealed with all lids properly and securely affixed to the container and all openings tightly bound or closed sufficiently to prevent leaks and emissions.

(ii) The wipes shall not be accumulated by the generator for more than 180 days from the start date of accumulation for each container prior to being sent for disposal.

(iii) At the point of being transported for disposal, the wipes shall contain no free liquids.

(iv) Free liquids removed from the wipes or from the container holding the wipes shall be managed in accordance with these rules.

(v) Generators shall maintain at their site all of the following:

(A) The name and address of the landfill or combustor that is receiving the wipes.

(B) Documentation that the 180-day accumulation time limit in paragraph (ii) of this subdivision is being met.

(C) A description of the process the generator is using to ensure that the wipes contain no free liquids at the point of being transported for disposal.

(vi) The wipes are sent for disposal to any of the following:

(A) A municipal solid waste landfill regulated under part 115 of the act.

(B) A municipal solid waste landfill regulated under 40 C.F.R. part 258, including 40 C.F.R. §258.40.

(C) A hazardous waste landfill regulated under these rules.

(D) A hazardous waste landfill regulated under 40 C.F.R. part 264 or 265.

(E) A municipal waste combustor or other combustion facility regulated under section 129 of the clean air act.

(F) A hazardous waste combustor, boiler, or industrial furnace regulated under these rules.

(G) A hazardous waste combustor, boiler, or industrial furnace regulated under 40 C.F.R. part 264, 265, or 266, subpart H.

(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~~ **USPS**, 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~~ **USPS**, 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 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~~ **USPS**, or any other applicable shipping requirements.

(ii) If the DOT, ~~United States postal service~~ **USPS**, 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, "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) Carbon dioxide streams that are captured and transported for the purposes of injection into an underground injection well subject to the requirements for class VI underground injection control wells, including the requirements of 40 C.F.R. parts 144 and 146 of the underground injection control program of Act 399, are not a hazardous waste if all of the following requirements are met:

(a) Transportation of the carbon dioxide stream shall be in compliance with all of the following DOT requirements:

(i) The pipeline safety laws under 49 U.S.C. 60101 et seq.

(ii) The pipeline safety regulations under 49 C.F.R. parts 190-199.

(iii) The pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable.

(b) Injection of the carbon dioxide stream shall be in compliance with the applicable requirements for class VI underground injection control wells, including the applicable requirements of 40 C.F.R. parts 144 and 146.

(c) No hazardous waste shall be mixed with, or otherwise co-injected with, the carbon dioxide stream.

(d) Any generator of a carbon dioxide stream who claims that a stream is excluded under this subrule shall sign, or have an authorized representative sign, a certification statement worded in accordance with 40 C.F.R. §261.4(h)(4)(i).

(e) Any class VI underground injection control well owner or operator who claims that a carbon dioxide stream is excluded under this subrule shall sign, or have an authorized representative sign, a certification statement worded in accordance with 40 C.F.R. §261.4(h)(4)(ii).

(f) The signed certification statements referenced in subdivisions (d) and (e) of this subrule shall be kept on-site for not less than 3 years. The statements shall be made available within 72 hours of a written request from the director. The statements shall be renewed every year that the exclusion is claimed by having the generator or the owner or operator, or their authorized representative, annually prepare and sign a new copy of the statement within 1 year of the date of the previous statement. The statements shall also be readily accessible on the generator and owner or operator's publicly-available website, if

one exists, as a public notification with the title of “Carbon Dioxide Stream Certification” at the time the exclusion is claimed.

(134) The provisions of 40 C.F.R. §§261.4(h)(4)(i) and (ii) and 261.38, part 144, part 146, part 280, and part 761 and 49 C.F.R. parts 190-199 are adopted by reference in R 299.11003 and R 299.11004.

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, 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 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 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 more than 100 kilograms, but less than 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 a 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.

(j) Is a hazardous waste that is an unused commercial chemical product listed in R 299.9214 or exhibiting 1 or more characteristics in R 299.9212 and is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to R 299.9313.

(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.

R 299.9206 Requirements for recyclable materials.

Rule 206. (1) Except as provided in subrules (2) to (56) 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 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 shipment 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 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 post-combustion treatment at which contaminants are removed and if the fuel is in compliance with the used oil fuel specification 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 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 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 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 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 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 lamps are accumulated shall be protected, as appropriate for the type of waste being stored, from weather, fire, physical damage, and vandals.

(j) 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 lamps received on-site during the calendar year.

(ii) The quantity of lamps recycled at the facility during the calendar year.

(iii) The documentation necessary to demonstrate that the 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 lamps are being stored in containers and the provisions of R 299.9615 if the lamps are being stored in tanks.

(n) The lamps shall not be stored on-site for more than 1 year from the date that the owner or operator receives the lamps.

(o) Any hazardous waste that is generated from the 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.

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-93-145a, which is adopted by reference in R 299.11001.

(ii) A setaflash closed cup tester using the test method specified in ASTM standard D-3278-96, 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 D6450-0512, 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 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 Division 1.1, 1.2, or 1.3 explosive as defined in 49 C.F.R. §§173.50 and 173.53, which are 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 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 8280B or 8290A 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.

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	440-38-2	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-chlorocyclo-hexane, 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

Table 201a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
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.

R 299.9220 Table 203a; hazardous waste from nonspecific sources.

Rule 220. Table 203a reads as follows:

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	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	(T)
F003	The following spent nonhalogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl	(I)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	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 one1 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	
F004	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 one1 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	(T)
F005	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 one1 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	(I,T)
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	Quenchineg 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. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if both of the following requirements are met: 1) the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either disposed of in a solid waste landfill unit that is permitted or licensed under part 115, solid waste management, of the act;	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	disposed in a hazardous waste landfill meeting the requirements of the act and these rules; or, if out of state, disposed of in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed, or otherwise authorized by the receiving state; or disposed of in a landfill subject to, or otherwise meeting, the requirements of 40 C.F.R. §§258.40, 264.301, or 265.301, and 2) the generator maintains records to prove that the exempted sludges meet the conditions of the listing, including: volume of waste generated and disposed off site; date the waste was generated, date the waste was sent off site, name and address of receiving facility, and documentation confirming receipt. For the purposes of this listing, motor vehicle manufacturing means the engagement in the manufacture of complete automobiles and light trucks/utility vehicles or chassis only.	
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,	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	with varying amounts and positions of chlorine substitution	
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)
F037	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 oily 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	(T)

Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	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)(I) if those residuals are being disposed.	
F038	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.	(T)
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)

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	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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 or 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-, 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 or 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-[(dimethyl-amino)carbonyl]-5-	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		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 or 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 or cyanogen chloride (CN)C ₁	
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol	
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	90,90-Diethyl 90-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-, (1alpha,2beta,2alpha, 3beta,6beta,6alpha,7beta,7alpha)-	
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-, (1alpha, 2beta,2abeta,3alpha, 6alpha,6abeta,7beta, 7alpha)-, & 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	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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, and metabolites	
P042	51-43-4	Epinephrine	
P031	460-19-5	Ethanedinitrile	
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-[[[(methylamino) 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 or 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(dimethylcarbamo-dithioato-S,S')-, or 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-	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		[[[(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	
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 or nickel carbonyl Ni(CO) ₄ , (T-4)-	
P074	557-19-7	Nickel cyanide or 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 or nitrogen (IV) oxide	
P076	10102-43-9	Nitrogen (II) 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 or 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	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P095	75-44-5	Phosgene	
P096	783-51-2	Phosphine	
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 or 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	
P103	630-10-4	Selenourea	
P104	506-64-9	Silver cyanide or silver cyanide Ag(CN)	
P105	26628-22-8	Sodium azide	
P106	143-33-9	Sodium cyanide or sodium cyanide Na(CN)	
P108	57-24-9	Strychnidin-10-one, and salts, or strychnine and salts	

Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-	
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 or 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 or 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(dimethylcarbamodithioato-S,S')-	
P121	557-21-1	Zinc cyanide or 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	

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)-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U005	53-96-3	Acetamide, N-9H-fluoren-2-y1-	
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-Acetylamino fluorene	
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-[(aminocarbonyloxy) methyl]-1,1a,2,8,8a,8b hexahydro-8a-methoxy-5-methyl-	
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-propynyl)-	
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-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		chlorophenyl)- alpha-hydroxy, ethyl ester	
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-chloro-	
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 or 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-chloro-	
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)=bis [4-methoxy-	
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)-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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[<i>rst</i>]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[<i>a</i>]pyrene	
U197	106-51-4	<i>p</i> -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-oxybutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1 α (Z),7(2S*,3R*), 7a α]]-	
U031	71-36-3	<i>n</i> -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-ethanediybis-, salts and esters	
U062	2303-16-4	Carbamodithioic acid, bis(1-methylethyl)-, S-(2,3-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		dichloro-2-propenyl) ester	
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	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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'- e 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	A 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	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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 (urethane)	
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	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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) carbonyl]amino]-	
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 or hydrogen fluoride	(C,T)
U135	7783-06-4	Hydrogen sulfide or 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	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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-3a,4,7,7a-tetrahydro	
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-decachlorooctahydro-	
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)

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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-methoxy-	
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)-, tetrasodium salt	
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-oxide	
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	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
See F027	87-86-5	Pentachlorophenol	
U186	504-60-9	1,3-Pentadiene	
U161	108-10-1	Pentanonl, 4-methyl-	
U186	98-95-3	Nitrobenzene	(I,T)
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-ethenediyl)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)-, methylcarbamate	
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-chloroethyl)amino]-	
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-trichlorophenoxy)-	
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-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
U203	94-59-7	Safrole	
U204	7783-00-8	Selenious acid or seleniousm dioxide	
U205	7488-56-4	Selenium sulfide or 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 or 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 S ₂ , tetramethyl-	

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
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 ester	
U249	1314-84-7	Zinc phosphide, when present at concentration 10% or less	

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 Number	Chemical Abstract Services Number	Substance	Hazard Code
001U	50-76-0	Actinomycin D	
002U	107-05-1	Allyl chloride	
003U	117-79-3	2-aminoanthraquinone	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
004U	60-09-3	Aminoazobenzene	
005U	97-56-3	90 -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	
014U	1397-94-0	Antimycin A	
147U	2642-71-9	Azinphos-ethyl	
148U	86-50-0	Azinphos-methyl	
159U	103-33-3	Azobenzene	
020U	1689-84-5	Bromoxynil	
160U	106-99-0	1,3-Butadiene	
161U	85-68-7	Butyl benzl phthalate	
022U	2425-06-1	Captafol	
023U	133-06-2	Captan	
027U	786-19-6	Carbophenothion	
152U	470-90-6	Chlorfenuinphos	
029U	2921-88-2	Chloropyrifos	
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	
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	
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	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
073U	54-85-3	Isonicotinic acid hydrazide	
167U	59299-51-3	Kanechlor C	
074U	463-51-4	Ketene	
075U	78-97-7	Lactonitril	
076U	21609-90-5	Leptophos	
078U	569-64-2	Malachite green	
079U	121-75-5	Malathion	
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	
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	4-Nitrobiphenyl	
102U	1836-75-5	Nitrofen	
103U	531-82-8	N-(4-(5-nitro-2-furanyl)-2-thiazolyl)-acetamide	
104U	51-75-2	Nitrogen mustard	
106U	156-10-5	p-Nitrosodiphenylamine	
108U	135-20-6	N-nitroso-N-phenylhydroxylamine, ammonium salt	
169U	29082-74-4	Octachlorostyrene	
110U	301-12-2	Oxydemeton-methyl	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
111U	1910-42-5	Paraquat dichloride	
112U	79-21-0	Peroxyacetic acid	
113U	136-40-3	Phenazopyridine hydrochloride	
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	
124U	57-57-8	Propiolactone	
127U	51-52-5	Propylthiouracil	
128U	83-749-4	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	
136U	13071-79-9	Terbufos	
137U	961-11-5	Tetrachlorvinphos	
138U	139-65-1	4,4'-Thiodianiline	
139U	95-53-4	o-Toluidine	
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	
174U	51-79-6	Urethane	
175U	593-60-2	Vinyl bromide	

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.

R 299.9230 ~~Comparable and syngas fuels exclusion~~Rescinded.

~~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 if all of the requirements of 40 C.F.R. §261.38(b) are met:~~

~~(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 syngas 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) Hazardous waste shall not be blended to meet the comparable fuel specifications under subrule (1)(a)(i) and (iii) of this rule.~~

~~(3) Hazardous waste may be blended to meet the viscosity specification in subrule (1)(a)(ii) of this rule if all of the following requirements are met:~~

~~(a) As generated and prior to any blending, manipulation, or processing, meet the constituent and heating value specifications of subrule (1)(a)(i) and (iii) of this rule.~~

~~(b) The blending is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.~~

~~(c) The blending does not violate the dilution prohibition in subrule (8) of this rule.~~

~~(4) A hazardous waste may be treated to meet the specifications for comparable fuel under subrule (1)(a) of this rule if the treatment meets all of the following requirements:~~

~~(a) The treatment destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying the hazardous constituents or materials.~~

~~(b) The treatment is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.~~

~~(c) The treatment does not violate the dilution prohibition in subrule (8) of this rule.~~

~~(5) Residuals resulting from the treatment of a hazardous waste listed under these rules to generate a comparable fuel are considered a hazardous waste.~~

~~(6) A syngas fuel may be generated from the processing of hazardous waste to meet the exclusion specifications in subrule (1)(b) of this rule if all of the following requirements are met:~~

~~(a) The processing destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying the hazardous constituents or materials.~~

~~(b) The processing is performed at a facility that is subject to the applicable requirements of R 299.9306 and Part 6 of these rules.~~

~~(c) The processing does not violate the dilution prohibition in subrule (8) of this rule.~~

~~(7) Residuals resulting from the processing of hazardous waste listed under these rules to generate a syngas fuel are considered a hazardous waste.~~

~~(8) A generator, transporter, handler, or owner or operator shall not in any way dilute a hazardous waste to meet the comparable specifications in subrule (1)(a)(i) or (iii) of this rule or the syngas specifications in subrule (1)(b) of this rule.~~

~~(9) An excluded comparable or syngas fuel loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under this rule and the material shall be managed as a hazardous waste from the point of generation.~~

~~(10) The provisions of 40 C.F.R. §261.38(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," "state 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," the reference "R 299.9206(1)" shall replace the reference "§261.6(c)," the words "part 2 of these rules" shall replace the references to §§261.21 through 261.24, 261.31, and 261.33, the term "R 299.9230" shall replace the reference to §261.38, and the term "R 299.9302" shall replace the reference to §262.11.~~

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 is** 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."

R 299.9232 Legitimate recycling of hazardous secondary materials.

Rule 232. (1) The recycling of a hazardous secondary material for the purpose of exclusion or exemption from the regulation as a hazardous waste shall be legitimate. A hazardous secondary material that is not legitimately recycled is a discarded material and, therefore, a waste. Legitimate recycling shall meet all of the following requirements:

(a) The recycling shall involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. A hazardous secondary material provides a useful contribution if it meets 1 of the following requirements:

- (i) It contributes a valuable ingredient to a product or intermediate.**
- (ii) It replaces a catalyst or carrier in the recycling process.**
- (iii) It is the source of a valuable constituent recovered in the recycling process.**
- (iv) It is recovered or regenerated by the recycling process.**
- (v) It is used as an effective substitute for a commercial product.**

(b) The recycling process shall produce a valuable product or intermediate. A product or intermediate is valuable if it meets 1 of the following requirements:

- (i) It is sold to a third party.**
- (ii) It is used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.**

(c) The generator and the recycler shall manage the hazardous secondary material as a valuable commodity when it is under their control. If there is an analogous raw material, the hazardous secondary material shall be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. If there is no analogous raw material, the hazardous secondary material must be contained. A hazardous secondary material that is released to the environment and is not recovered immediately is discarded.

(d) The product of the recycling process shall be comparable to a legitimate product or intermediate. The product of the recycling process shall be considered comparable to a legitimate product or intermediate if it meets 1 of the following requirements:

(i) If there is an analogous product or intermediate, the product of the recycling process is comparable to a legitimate product or intermediate if both of the following requirements are met:

(A) The product of the recycling process does not exhibit a hazardous characteristic as defined in R 299.9212 that analogous products do not exhibit.

(B) The concentrations of any hazardous constituents found in appendix VIII of 40 C.F.R. part 261 that are in the product or intermediate are at levels that are comparable to, or lower than, those found in analogous products or at levels that meet widely recognized commodity standards and specifications, in the case where the commodity standards and specifications include levels that specifically address those hazardous constituents.

(ii) If there is no analogous product, the product of the recycling process is comparable to a legitimate product or intermediate if 1 of the following requirements is met:

(A) The product of the recycling process is a commodity that meets widely recognized commodity standards and specifications.

(B) The hazardous secondary material being recycled is returned to the original process or processes from which it was generated to be reused.

(iii) If the product of the recycling process has levels of hazardous constituents that are not comparable to or are unable to be compared to a legitimate product or intermediate

under paragraph (i) or (ii) of this subdivision, the recycling still may be shown to be legitimate if the following requirements are met:

(A) The person performing the recycling conducts the necessary assessment showing why the recycling is, in fact, still legitimate.

(B) The recycling can be shown to be legitimate based on lack of exposure from toxics in the product, lack of the bioavailability of the toxics in the product, or other relevant considerations which show that the recycled product does not contain levels of hazardous constituents that pose a significant human health or environmental risk.

(C) The person performing the recycling prepares documentation demonstrating why the recycling is, in fact, still legitimate. The documentation must include a certification statement that the recycling is legitimate and must be maintained on-site for 3 years after the recycling operation has ceased. The person performing the recycling shall notify the director of this activity using Michigan site identification form EQP5150.

R 299.9233 Standards applicable to hazardous secondary materials excluded under the remanufacturing exclusion.

Rule 233. (1) Hazardous secondary materials excluded under the remanufacturing exclusion in R 299.9204(1)(cc) and stored in containers shall be managed in accordance with 40 C.F.R. part 261, subpart I.

(2) Hazardous secondary materials excluded under the remanufacturing exclusion in R 299.9204(1)(cc) and stored or treated in tank systems shall be managed in accordance with 40 C.F.R. part 261, subpart J.

(3) Hazardous secondary materials excluded under the remanufacturing exclusion in R 299.9204(1)(cc) shall be managed in compliance with the applicable regulations under 40 C.F.R. part 261, subparts AA, BB, and CC.

(4) The provisions of 40 C.F.R. part 261, subparts I, J, AA, BB, and CC are adopted by reference in R 299.11003. For the purposes of this adoption, the reference "R 299.9204(1)(cc)" shall replace the reference to "§261.4(a)(27)," the reference "R 299.9108" shall replace the reference to "§260.10" with respect to tank systems, the word "director" shall replace the words "regional administrator," the words "these rules" shall replace the words "parts 261 through 266, 268, 270, 271, and 124 of this chapter," the reference "R 299.11002" shall replace the reference to "§260.11" with respect to NFPA documents, the words "part 5 of these rules" shall replace the reference to "40 CFR part 270," the words "40 CFR part 266, subpart H and R 299.9808" shall replace the reference to "40 CFR part 266, subpart H," the reference "R 299.11001" shall replace the reference to "§260.11" with respect to APTI courses, ASTM methods and American Petroleum Institute Publications, and the words "parts 1 to 8 of these rules" shall replace the references to "40 CFR parts 260-266" and "40 CFR parts 260 through 266 of this chapter."

R 299.9234 Standards applicable to hazardous secondary materials excluded under the reclamation exclusion.

Rule 234. (1) Hazardous secondary materials excluded under the reclamation exclusions in R 299.9204(1)(aa) or (bb) shall be managed in accordance with 40 C.F.R. part 261, subpart M.

(2) The provisions of 40 C.F.R. part 261, subpart M are adopted by reference in R 299.11003. For the purposes of this adoption, the reference "R 299.9204(1)(aa) or (bb)" shall replace the reference to "§261.4(a)(23) and/or (24)," the word "director" shall replace the words "regional administrator," and the words "parts 3, 4, and 6 of these rules" shall replace the words "parts 262, 263, and 265 of this chapter."

PART 3. GENERATORS OF HAZARDOUS WASTE

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 **and use** a manifest in accordance with 40 C.F.R. §§~~262.20, 262.22, 262.23,~~ 262.27, and the instructions in the appendix to 40 C.F.R. part 262 before transporting the waste offsite.

(c) In lieu of using a paper manifest as specified in subdivisions (a) and (b) of this subrule, prepare and use an electronic manifest in accordance with 40 C.F.R. §§3.10 and 262.24.

~~(ed)~~ 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.

~~(2e) The generator shall do all of the following with respect to the manifest:~~

~~(a) Retain 1 copy pursuant to R 299.9307(3).~~

~~(b) Provide the transporter with the remaining copies of the manifest except as otherwise specified in 40 C.F.R. §262.23(c), (d), and (e).~~

~~(c)~~ For all out-of-state shipments **where a paper manifest is used as specified in subdivisions (a) and (b) of this subrule**, if the designated facility fails to provide a legible and timely copy of the completed 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.

~~(d) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator, comply with the requirements of 40 C.F.R. §262.23(f).~~

(2) The electronic signature methods for the e-manifest system shall be methods that are designed and implemented in a manner that EPA considers to be as cost-effective and practical as possible for the user of the manifest. An electronic signature shall be a legally valid and enforceable signature under applicable EPA and other federal requirements pertaining to electronic signatures.

(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(1)(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 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. §§~~3.10~~, 262.20, 262.21, ~~262.22~~, 262.23~~(e) to (f)~~, ~~262.24~~, 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."

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) A generator shall keep the documentation required pursuant to R 299.92~~29~~13~~(5)~~ for not less than 3 years.

(7) 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.

(8) 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.

PART 4. TRANSPORTERS OF HAZARDOUS WASTE

R 299.9409 Transporter manifest and recordkeeping requirements.

Rule 409. (1) Hazardous waste transporters shall only transport hazardous waste using a manifest **signed in accordance with 40 C.F.R. §262.23, or an electronic manifest that is obtained, completed, and transmitted in accordance with 40 C.F.R. §262.20(a)(3), and signed with in accordance with R 299.9304(2)**. 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 and make the records, logs, and documents readily available for inspection by the director or his or her designee, upon request. 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. **For the purpose of this adoption, the term "R 299.9207" shall replace the term 40 CFR §261.7".**

PART 5. CONSTRUCTION PERMITS AND OPERATING LICENSES

R 299.9502 Operating licenses for existing facilities; 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 as provided in R 299.9623, 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~~~~that~~ is in existence on March 30, 1983, and ~~which~~~~that~~ 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~~~~that~~ 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 may 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~~that 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**."

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 D4318-10, which is adopted by reference in R 299.11001.

(C) Classification pursuant to the unified soil classification system, according to ASTM standard D2487-11, 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 standards ~~D422-63~~**D6913-04** and **D7928-16**, which ~~is are~~ 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 D1586-11, 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 D5092-04 ~~(2010)e1~~ and D5299-~~9914~~, 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 D5092-04 ~~(2010)e1~~ and D5299-9914, 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 D2487-11, 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 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 D4318-10, which is adopted by reference in R 299.11001.
 - (iii) Classification pursuant to the unified soil classification system according to ASTM standard D2487-11, 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 standards ~~D422-63~~**D6913-04** and **D7928-16**, which ~~is~~**are** 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.

R 299.9519 Modification, revocation, and suspension of 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 operating license issued to the facility pursuant to part 111 of the act. Any deviation from the conditions of a license or from approved plans shall require prior approval by the director, unless otherwise specified in this rule, and, if necessary, modification of the license.

(2) If the director receives any information during the term of an 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 an 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 an 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 an 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 license was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the 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 operating license modification, suspension, or revocation, or at the time of reviewing an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility, unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of license issuance. In addition, the director shall not modify an operating license for a new facility or the expansion, enlargement, or alteration of an existing facility beyond what is authorized in the license.

(5) The licensee may put into effect the following minor license modifications without following the procedures specified in R 299.9511, if the licensee complies with subrule (6) of this rule:

(a) Any of the following general 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 license to allow earlier 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 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.

(ix) Changes to remove license conditions applicable to a unit excluded under R 299.9204.

(x) Changes in the expiration date of a license issued to a facility at which all units are excluded under R 299.9204.

(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 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 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 license.

(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 license.

(i) Any of the following land treatment modifications:

(i) A decreased rate of waste application.

(ii) A change in any condition specified in the 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 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 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 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 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 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 license modifications, the 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 license conditions or supporting documents referenced by the 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-license modification. The director may reject for cause. The director shall inform the licensee by certified mail that a minor license modification has been rejected and explain the reasons for the rejection. If a minor license modification is rejected, the licensee shall comply with the existing license conditions.

(8) For minor license modifications, the licensee may elect to follow the procedures specified in R 299.9511 instead of the license modification procedures. The 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 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 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 license current with routine changes to the facility or its operation. These changes do not substantially alter the 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 license modifications, the 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 license conditions or supporting documents referenced by the 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) An operating license may be revoked for any of the following reasons:

(a) Noncompliance by the licensee with part 111 of the act, these rules, or any condition of the 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 operating license issuance process to disclose fully all relevant facts or at any time misrepresents any relevant facts.

(12) Requests for operating license modification by a 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.

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 [section 1 of 1937 PA act-103 of the public acts of 1937](#), as amended, being [§MCL 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 within](#) 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.

**PART 6. OWNERS AND OPERATORS OF HAZARDOUS
WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES**

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 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 "operating license" shall replace the words "RCRA permit." For the purposes of the adoption of 40 C.F.R. §264.56(ji) 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.

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. **If the facility receives hazardous waste from a conditionally exempt small quantity generator that is accompanied by a manifest, the facility is not required to submit a copy of that 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 exporter, to the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, 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) Electronic manifests that are obtained, completed, and transmitted in accordance with 40 C.F.R. §262.20(a)(3) and used in accordance with this rule in lieu of paper manifests are the legal equivalent of paper manifests bearing handwritten signatures, and shall satisfy any requirement in these rules to obtain, complete, sign, provide, use, or retain a manifest as outlined in 40 C.F.R. §264.71(f) and (k).

(7) An owner or operator may participate in the electronic manifest system either by accessing the system from the owner or operator's electronic equipment, or from portable equipment brought to the facility by the transporter who delivers the hazardous waste shipment, and by complying with 40 C.F.R. §264.71(i) .

(8) If an owner or operator receives a hazardous waste shipment that is accompanied by a paper replacement manifest for a manifest that originated electronically, the owner or operator shall comply with 40 C.F.R. §264.71(h).

(9) An owner or operator who is a user of the electronic manifest system may be assessed a user fee by the EPA for the origination or processing of each electronic manifest. An owner or operator may also be assessed a user fee by the EPA for the collection and processing of paper manifest copies that owners or operators are required to submit in accordance with 40 C.F.R. §264.71(a)(2)(v). The EPA shall establish, publish, maintain, and update the user fees in accordance with 40 C.F.R. §264.71(j).

(10) 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.

(11) 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.

(12) The provisions of 40 C.F.R. §§264.71(a), ~~and (b), (f), and (h) to (k)~~, 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)."

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 D5092-04 ~~(2010)e1~~ and D5299-9914, 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 "operating license" shall replace the word "permit."

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 D2216-10, grain size distribution (sieve and hydrometer) as determined by ASTM standards ~~D421-85~~**D6913-04** and ~~D422-63~~**D7928-16**, classification by the unified soil classification system as determined by ASTM standard D2487-11, and Atterburg limits of the soil as determined by ASTM standard D4318-10 at varying depths every 100 feet, and the permeability of an undisturbed sample every 200 feet as determined by ASTM standard D5084-10.

(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 D~~2922-04~~**e16938-15** 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 ~~D421-85~~**D6913-04** and ~~D422-63~~**D7928-16**, Atterburg limits according to ASTM standard D4318-10, and natural moisture content according to ASTM standard D2216-10 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 D1557-12, 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 D5084-10, 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 ~~D421-85~~, D2216-10, D2487-11, D1557-12, ~~D422-63~~, D2434-68, D4318-10, ~~and~~ D5084-10, **D6913-04**, and **D7928-16** are adopted by reference in R 299.11001.

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 an 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 and indoor air that are established pursuant to part 201 of the act on the effective date of these rules 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 and indoor air that are established pursuant to part 201 of the act on the effective date of these rules 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 an 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 operating license, postclosure operating license, consent order, or other order. If an 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 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 D5092-04 ~~(2010)e1~~ and D5299-9914, 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 measures 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 measures 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 measures 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 measures 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 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 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 operating license, postclosure operating license, consent order, or other order, submit an application for a 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 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.

**PART 8. MANAGEMENT OF SPECIFIC HAZARDOUS WASTES,
SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES, AND USED OIL**

R 299.9801 Recyclable materials used in manner constituting disposal.

Rule 801. (1) The requirements of this rule apply to recyclable materials that are applied to or placed on the land in either of the following ways:

- (a) Without mixing with any other substance.
- (b) After mixing or combining with any other substance or substances.

(2) The materials specified in subrule (1) of this rule ~~will be~~ referred to ~~throughout~~ this rule as materials "used in a manner that constitutes disposal."

(3) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation pursuant to these rules if the recyclable materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means and if such products are in compliance with the applicable treatment standards specified in R 299.9311, R 299.9413, and R 299.9627, or where no treatment standards have been established, the applicable prohibition levels specified in 40 C.F.R. §268.32 or section 3004(d) of RCRA, for each recyclable material that the products contain, and the recycler complies with 40 C.F.R. §268.7(b)(6).

(4) An anti-skid/deicing use of slags that are generated from the high temperature metals recovery (HTMR) processing of K061, K062, and F006 in a manner that constitutes disposal is not covered by the exemption in subrule (3) of this rule and the use remains subject to regulation under part 111 of the act and these rules.

(5) Fertilizers that contain recyclable materials are not subject to regulation provided that they meet both of the following conditions:

- (a) They are zinc fertilizers excluded from the definition of waste according to R 299.9204(1)(~~yx~~).
- (b) They meet the applicable treatment standards in 40 C.F.R. part 268, subpart D for each hazardous waste they contain.

(6) Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of parts 3 and 4 of these rules.

(7) Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated pursuant to all of the applicable provisions of parts 5, 6, and 7 of these rules.

(8) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated pursuant to all of the applicable provisions of parts 5, 6, and 7 of these rules, except that these requirements do not apply to products that contain these recyclable materials pursuant to subrule (3) of this rule.

(9) Waste, used oil, or other material that is contaminated with a hazardous waste shall not be used for dust suppression or road treatment.

R 299.9808 Management of hazardous waste burned in boilers and industrial furnaces.

Rule 808. (1) The requirements of this rule apply to hazardous waste that is burned or processed in a boiler or industrial furnace irrespective of the purpose of the burning or processing, except as noted in subrules (2) to (4) of this rule. For the purposes of this rule, the term "burn" means burning hazardous waste for energy recovery or destruction or processing hazardous waste for materials recovery or as an ingredient.

(2) The following hazardous wastes and facilities are not subject to this rule:

- (a) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in R 299.9212. The used oil is subject to regulation pursuant to R 299.9809 to R 299.9816.

(b) Gas recovered from hazardous waste or solid waste landfills when the gas is burned for energy recovery.

(c) Hazardous wastes that are exempt from regulation pursuant to R 299.9204 and R 299.9206(3)(c) to (f), and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators pursuant to R 299.9205.

(d) Coke ovens, if the only hazardous waste burned in an oven is K087.

(3) The following owners or operators are not subject to regulation under this rule, except as noted:

(a) An owner or operator of a smelting, melting, and refining furnace, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, that processes hazardous waste solely for metal recovery is exempt from regulation under this rule, except for the requirements of subrules (6) and (8) of this rule, if the owner or operator is in compliance with the requirements of 40 C.F.R. §266.100(d)(1) to (3). The exemption does not apply to cement kilns, aggregate kilns, or halogen acid furnaces that process hazardous waste solely for metals recovery.

(b) An owner or operator of a smelting, melting, and refining furnace, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, that processes hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of the metals, is exempt from regulation under this rule, except for the requirements of subrule (8) of this rule, if the owner or operator is in compliance with the requirements of 40 C.F.R. §266.100(g)(1) to (3).

(c) An owner or operator of a facility that burns, in an on-site boiler or industrial furnace that is exempt from regulation pursuant to the small quantity provisions of 40 C.F.R. §266.108, hazardous waste that the facility has generated is exempt from regulation under parts 5 to 7 of these rules for storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. The storage of hazardous waste before mixing it with the primary fuel is subject to subrule (6) of this rule.

(d) An owner or operator of a facility that burns hazardous waste in an on-site boiler or industrial furnace, if all of the small quantity exemption criteria outlined in 40 C.F.R. §266.108 are met.

(4) Except as noted in this subrule, part 8 of these rules does not apply to owners and operators of a new cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that becomes subject to the license requirements of these rules after October 12, 2005, or to owners or operators of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace 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, after this compliance demonstration is made, the operating license conditions that are based on the standards of part 8 of these rules shall 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 (5) 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).

(5) 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, R 299.9808(8) and part 7 of these rules and 40 C.F.R. part 265, subparts A to D, F, G, BB, and CC, and §§266.102(e)(11), 266.103(l), 266.111, 266.112, except 266.112(a) and (c), as applicable.

(b) The particulate matter standard of 40 C.F.R. §266.105 if the owner or operator elects to comply with the alternative to the particulate matter standard under 40 C.F.R. §§63.1216(e) and 63.1217(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. §270.35(a)(1)(i) to minimize emissions of toxic compounds from these events, or for source areas if a person elects to comply with 40 C.F.R. §§266.105 to 266.107 and the associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals:

(i) The requirements of 40 C.F.R. §266.102(e)(1) which require that a boiler or industrial furnace operate pursuant to the operating requirements specified in the operating license at all times that hazardous waste is in the unit.

(ii) The requirements of 40 C.F.R. §266.102(e)(2)(iii) 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.

(d) The following requirements remain in effect for owners or operators of a boiler or hydrochloric acid production furnace that is an area source under 40 C.F.R. §63.2 if the owner or operator does not elect to comply with the emission standards under 40 C.F.R. §§63.1216, 63.1217, and 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine:

(i) The requirements of 40 C.F.R. §266.105.

(ii) The requirements of 40 C.F.R. §266.106.

(iii) The requirements of 40 C.F.R. §266.107.

(6) A generator and a transporter of hazardous waste that is burned in a boiler or industrial furnace shall comply with parts 3 and 4 of these rules, respectively.

(7) An owner or operator of a facility that stores hazardous waste that is burned in a boiler or industrial furnace shall comply with the applicable requirements of parts 5 to 7 of these rules. The requirements of parts 5 to 7 of these rules shall apply to the storage by the burner and to storage facilities operated by intermediaries, including processors, blenders, distributors, between the generator and the burner.

(8) An owner or operator of a boiler or an industrial furnace that burns hazardous waste shall comply with the applicable requirements of parts 5 to 7 of these rules and 40 C.F.R. part 266, subpart H and appendices I to XIII; except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c); and §270.66.

(9) A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of hazardous waste under R 299.9204(2)(d), (hi), and (jk), unless the device and the owner or operator are in compliance with all of the following requirements:

(a) The device meets the following criteria:

(i) If the device is a boiler, it shall burn not less than 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal.

(ii) If the device is an industrial furnace subject to R 299.9204(2)(hi), it shall process not less than 50%, by weight, normal, nonhazardous raw materials.

(iii) If the device is a cement kiln, it shall process not less than 50%, by weight, normal cement production raw materials.

(b) The owner or operator demonstrates, in writing, to the director's satisfaction, that the hazardous waste does not significantly affect the residue by demonstrating conformance with the criteria outlined in 40 C.F.R. §266.112(b)(1) and (2).

(c) Records sufficient to document compliance with this subrule shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following information shall be included in the records, as applicable:

- (i) The levels of constituents in 40 C.F.R. part 261, appendix VIII, that are present in waste-derived residues.
- (ii) If the waste-derived residue is compared with normal residue under this subrule, then all of the following information shall be documented in the records:
 - (A) The levels of constituents in 40 C.F.R. part 261, appendix VIII, that are present in normal residues.
 - (B) Data and information, including analyses of samples as necessary, that were obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.
- (10) The provisions of 40 C.F.R. parts 265, subparts A to D, F, G, BB, and CC, 266, subpart H and appendices I to XIII; except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c); §270.66, and §270.235(a)(1)(i) are adopted by reference in R 299.11003. For the purposes of 40 C.F.R. part 266, subpart H and §270.66, the word "director" shall replace the words "regional administrator."

R 299.9822 Low-level mixed waste storage and treatment; conditional exemption, eligibility, and standards.

Rule 822. (1) Persons storing and treating LLMW shall comply with these rules unless otherwise specified in this rule.

(2) LLMW is exempt from the definition of hazardous waste under the storage and treatment conditional exemption if both of the following requirements are met:

- (a) The LLMW meets the eligibility requirements of subrule (3) of this rule.
- (b) Persons storing and treating the LLMW comply with subrule (4) of this rule.

(3) LLMW is eligible for the LLMW storage and treatment conditional exemption if it is generated and managed under a single NRC or NRC agreement state license. A facility that receives LLMW generated at a facility with a different NRC or NRC agreement state license number is subject to the operating license requirements under parts 5 and 6 of these rules and is ineligible for the conditional exemption in subrule (2) of this rule. NARM waste is also ineligible for the conditional exemption in subrule (2) of this rule.

(4) In order to qualify for and maintain the LLMW storage and treatment conditional exemption, persons storing and treating LLMW shall comply with all of the following requirements:

(a) Provide to the department by certified delivery written notification that the conditional exemption is being claimed. The notification shall be provided to the department within 90 days of the effective date of this rule or within 90 days of when a storage or treatment unit is first used to store or treat conditionally exempt LLMW. The dated notification shall include all of the following information:

- (i) The applicant's name.
- (ii) The applicant's address.
- (iii) The applicant's site identification number.
- (iv) The applicant's NRC or NRC agreement state license number.
- (v) The hazardous waste number(s) of the waste for which the exemption is being sought.
- (vi) The storage unit(s) and treatment unit(s) for which the exemption is being sought.
- (vii) A statement that the applicant meets the conditions of this rule.
- (viii) The signature of an authorized representative certifying that the information in the notification is true, accurate, and complete.

(b) Store the LLMW in tanks or containers in compliance with the requirements of the NRC or NRC agreement state license that apply to the proper storage of LLRW, not including those requirements that relate solely to recordkeeping.

(c) Store the LLMW in tanks or containers in compliance with the chemical compatibility requirements for tanks or containers in part 6 of these rules.

(d) Certify that facility personnel who manage stored conditionally exempt LLMW are trained in a manner that ensures that the conditionally exempt waste is safely managed and includes training in chemical waste management and hazardous materials incidents response that meets the personnel training standards of 40 C.F.R. §265.16(a)(3).

(e) Conduct an inventory of the stored conditionally exempt LLMW at least annually and inspect the waste at least quarterly for compliance with this rule and R 299.9823, as applicable.

(f) Maintain an accurate emergency plan and provide the plan to all local authorities who may have to respond to a fire, explosion, or release of hazardous waste or hazardous constituents. The plan shall include all of the following information:

- (i) A description of the emergency response arrangements with local authorities.
- (ii) A description of the evacuation plans.
- (iii) A list of the names, addresses, and telephone numbers of all facility personnel qualified to work with local authorities as emergency coordinators.
- (iv) A list of the emergency equipment.

(g) Only treat the LLMW at the facility within a tank or container pursuant to the terms of the NRC or NRC agreement state license. Treatment that cannot be conducted in a tank or container without an operating license under these rules, such as incineration, is not allowed under the conditional exemption of subrule (2) of this rule.

(5) Failure to comply with the requirements of subrule (4) of this rule shall result in the automatic loss of the conditional exemption of subrule (2) of this rule. If the exemption is lost, the person handling the LLMW shall comply with all of the following requirements:

(a) Immediately manage the waste associated with the failure as a hazardous waste. The associated storage or treatment unit(s) shall become subject to the hazardous waste tank and container storage and treatment requirements of these rules, as applicable.

(b) Provide a written report by certified delivery to the department and the NRC, or the oversight agency in the NRC agreement state. The report shall be submitted within 30 days of learning of the failure to comply. The report shall be signed by an authorized representative certifying that the information provided in the report is true, accurate, and complete. The report shall include all of the following information:

- (i) The specific conditions that were not met.
- (ii) The waste name associated with the LLMW.
- (iii) The hazardous waste number associated with the LLMW.
- (iv) The quantity of LLMW involved.
- (v) The storage or treatment location at the facility.
- (vi) The date or dates upon which the failure to meet the conditions occurred.

(6) If the failure to meet any of the LLMW storage and treatment conditional exemption conditions may endanger human health or the environment, oral notification to the department shall be made within 24 hours and follow-up written notification shall be provided within 5 days. Failures that may endanger human health or the environment include, but are not limited to, the discharge of a cercla reportable quantity, leaking or exploding tanks or containers, detection of radionuclides above background, or detection of hazardous constituents in the leachate collection system of a storage area. Failures that may endanger human health or the environment require execution of emergency plans.

(7) The department may terminate a LLMW storage and treatment conditional exemption, or require additional conditions to claim an exemption, for serious or repeated noncompliance with any of the requirements of this rule and R 299.9823.

(8) Persons that have lost their LLMW storage and treatment conditional exemption may regain their exemption by complying with all of the following requirements:

- (a) Complying with subrule (4) of this rule.

(b) Providing to the department by certified delivery written notification that the exemption is being reclaimed. The notification shall be signed by an authorized representative certifying that the information contained in the notice is true, accurate, and complete. The notification shall contain all of the following information:

- (i) An explanation of the circumstances surrounding each failure to comply.
- (ii) A certification that each failure has been corrected and that all of the conditions required for the exemption have been met as of the specified date.
- (iii) A description of the plans that have been implemented, listing the specific steps taken to ensure that all of the conditions required for the exemption will be met in the future.
- (iv) Any other information that should be considered by the department in reviewing the notice to reclaim the exemption.

(9) The department may terminate a reclaimed LLMW storage and treatment conditional exemption if the department finds that the claim is inappropriate based on factors including, but not limited to, any of the following:

- (a) Not correcting the problem which resulted in loss of the exemption.
- (b) Providing an unsatisfactory explanation of the circumstances surrounding the failure to comply with the requirements for the exemption.
- (c) Not implementing a plan with steps to prevent another failure to comply with the requirements for the exemption.

(10) When reviewing a request to reclaim the LLMW storage and treatment conditional exemption under subrule (18) of this rule, the department may add additional conditions to the LLMW storage and treatment conditional exemption to ensure that the waste management during the storage and treatment of the waste will protect human health and the environment.

(11) In addition to the records required by a NRC or NRC agreement state license, all of the following records shall be kept:

- (a) Initial notification records, return receipts, reports regarding failure to meet the exemption conditions, and all records supporting any reclamation of an exemption.
- (b) Records of the LLMW annual inventories and quarterly inspections.
- (c) Certification that facility personnel who manage stored or treated LLMW are trained in the safe management of the waste, including training in chemical waste management and hazardous materials incidents response.
- (d) The emergency plan specified in subrule (4)(f) of this rule.

(12) Records concerning notifications, personnel training, and emergency plans shall be maintained at the facility for as long as the LLMW storage and treatment conditional exemption is claimed and for 3 years thereafter, or pursuant to NRC regulations under 10 C.F.R. part 20 or equivalent NRC agreement state regulations, whichever is longer.

Records concerning annual inventories and quarterly inspections shall be maintained at the facility for 3 years after the waste is sent for disposal, or pursuant to NRC regulations under 10 C.F.R. part 20 or equivalent NRC agreement state regulations, whichever is longer.

(13) The LLMW storage and treatment conditional exemption does not apply in the following situations:

- (a) Once the LLMW has met the requirements of the NRC or NRC agreement state license for decay-in-storage and can be disposed of as nonradioactive waste. On that date, the waste is subject to regulation as a hazardous waste under these rules and the time period for accumulation of hazardous waste specified in part 3 of these rules begins.
- (b) Once the LLMW, which has been generated and stored or treated under a single NRC or NRC agreement state license number, is removed from storage. However, the LLMW may qualify for the transportation and disposal conditional exemption in R 299.9823.

(14) Facilities that have been used to store only LLMW before the effective date of this rule, and after that date, store only LLMW which becomes exempt under this rule or R 299.9823, are not

subject to the closure requirements of part 6 of these rules. Storage and treatment units, or portions thereof, that have been used to store both LLMW and non-mixed hazardous waste before the effective date of this rule, or are used to store both wastes after that date, remain subject to the closure requirements with respect to the non-mixed hazardous waste.

(15) The provisions of 10 C.F.R. part 20 and 40 C.F.R. §265.16(a)(3) are adopted by reference in R 299.11003.

PART 10. AVAILABILITY OF REFERENCED MATERIALS

R 299.11001 Publications; adoption by reference.

Rule 1001. (1) The following ASTM standards are adopted by reference in these rules:

- (a) D-93-1~~45a~~ (\$~~4650~~).
- (b) ~~D 421-85 (2007) (\$35).~~
- ~~(c) D 422-63 (2007) (\$40).~~
- ~~(d)~~ D-698-12 (**2015**) (\$**4650**).
- (~~ec~~) D-1557-12 (\$**4650**).
- (~~fd~~) D-1586-11 (\$~~404~~).
- (~~ge~~) D-1946-90 (201~~15~~) (\$~~404~~).
- (~~hf~~) D-2216-10 (\$~~404~~).
- (~~ig~~) D-2434-68 (2006) (\$40).
- (~~jh~~) D-2487-11 (\$**4650**).
- (~~ki~~) D-2879-10 (\$~~404~~).
- (~~lj~~) ~~D 2922-04e1 (\$48).~~
- ~~(m)~~ D-3278-96 (2011) (\$~~404~~).
- (~~nk~~) D-4318-10 (**2014**) (\$**4650**).
- (~~el~~) D-4809-~~09a~~**13** (\$~~404~~).
- (~~pm~~) D-5084-10 (\$~~5764~~).
- (~~qn~~) D-5092-04 (2010)~~e1~~ (\$**4650**).
- (~~ro~~) D-5299-~~9914 (2005)~~ (\$**4650**).
- (~~sp~~) D-5580-~~0215 (2007)~~ (\$**4050**).
- (~~tq~~) D-6450-~~0512 (20104)~~ (\$~~404~~).
- (**r**) **D6913-04 (2009)e1 (\$64).**
- (**s**) **D6938-15 (\$44).**
- (**t**) **D7928-16 (\$64).**
- (u) E-168-06 (\$**4650**).
- (v) E-169-04 (20~~09~~**14**) (\$~~404~~).
- (w) E-260-96 (2011) (\$**4650**).
- (x) E-926-94, Test Method C (\$48).

(2) The standards listed in subrule (1) of this rule are available from the ASTM International, Sales Services, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959. The costs identified in subrule (1) reflect the costs at the time these rules were promulgated. The standards adopted in subrule (1) of this rule are available for inspection and distribution at the Lansing office of the department; Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW. (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(3) The publication entitled "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, PB91101709, December 1981, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-6000 or 800-553-6847, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$81, the cost at the time these rules were promulgated. The publication is available for inspection and distribution at the Lansing office of the department; the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(4) The publication entitled "U.S. EPA, Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised," October 1992, EPA Publication No. EPA-454/R-92-019, PB93219095, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-0000 or 800-553-6847, or the U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 919-541-7645, for \$39.50, the cost at the time these rules were promulgated. The publication adopted in this subrule is available for inspection and distribution at the Lansing office of the department.

(5) The publication entitled "API Publication 2517, Third Edition, Evaporative Loss From External Floating Roof Tanks," February 1989, **as amended**, is adopted by reference in these rules. The publication is available from the American Petroleum Institute, 1220 L Street, NW, Washington, DC, 20005, for \$~~10082~~, the cost at the time these rules were promulgated. The publication adopted in this subrule is available for inspection and distribution at the Lansing office of the department.

(6) The publication entitled "Method 1664, Revision A, n-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated n-Hexane Extractable Material (SGT-HEM; Non-Polar Material) by Extraction and Gravimetry," PB99-121949, is adopted by reference in these rules. The publication is available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, 703-605-0000 or 800-553-6847, or the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$33, the cost at the time these rules were promulgated. The publication is available for inspection and distribution at the Lansing office of the department; the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, (3403T), Washington, DC 20460, libraryhq@epa.gov; or the National Archives and Records Administration, 202-741-6030, http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(7) The publications entitled "OECD Green List of Wastes" (revised May 1994), "Amber List of Wastes" (revised May 1993), and "Red List of Wastes" (revised May 1993) as set forth in Appendix 3, Appendix 4, and Appendix 5, respectively, to the OECD Council Decision C(92)39/FINAL (Concerning the Control of Transfrontier Movements of Wastes Destined for Recovery Operations) are adopted by reference in these rules. The publications are available for purchase from the Organisation for Economic Co-operation and Development, Environment Directorate, 2 rue Andre Pascal, 75775 Paris Cedex 16, France, at cost. The publications are available for inspection and distribution at the Lansing office of the department.

R 299.11002 NFPA standard; adoption by reference.

Rule 1002. (1) The NFPA standards no. 30 (201~~25~~) and 704 (2012) are adopted by reference in these rules.

(2) The standard listed in subrule (1) of this rule is available from the National Fire Protection Association, 1 Batterymarch Drive, Quincy, Massachusetts 02269-9101, for \$~~50.5068~~ and \$~~3946~~, respectively, the cost at the time these rules were promulgated. The standard adopted in this rule is available for inspection and distribution at the Lansing office of the department.

R 299.11003 Adoption by reference of federal regulations.

Rule 1003. (1) The following federal regulations in 40 C.F.R. are adopted by reference in these rules:

(a) 40 C.F.R. §3.10.

- (ab)** 40 C.F.R. part 60, appendices A and B.
- (bc)** 40 C.F.R. part 63, subparts EEE and LLL.
- (ed)** 40 C.F.R. part 124.
- (de)** 40 C.F.R. part 144.
- (ef)** 40 C.F.R. part 145.

- (fg) 40 C.F.R. part 146.
- (gh) 40 C.F.R. part 147.
- (hi) 40 C.F.R. §§260.20, 260.21, 260.22, 260.31, 260.32, and 260.33, **260.34, and 260.42.**
- (ij) 40 C.F.R. §§**261.4(h)(4)(i)-(ii)**, 261.10, 261.11, 261.21(a)(3), 261.32(a), for K181 listing only, (c), and (d), 261.35(2)(b)(iii), 261.38(b), 261.39(a)(5), and 261.41, **and subparts I, J, M, AA, BB, and CC.**
- (jk) 40 C.F.R. part 261, appendix I, appendix VII, and appendix VIII.
- (kl) 40 C.F.R. §§262.20, 262.21, **262.22**, 262.23~~(e) to (f)~~, **262.24**, 262.27, 262.34(m)(1) and (2), 262.40(a), (c), and (d), 262.41(a)(1)-(8), and 262.43, and 40 C.F.R. part 262, subparts E and H and the appendix to the part, except 40 C.F.R. §§262.54, 262.55, and 262.80, and part 262, subpart K, except §§262.201 and 262.202 and the references to performance track members.
- (lm) 40 C.F.R. part 263, subpart B.
- (mn) 40 C.F.R. part 264, subpart B, subpart C, subpart D, subpart F, subpart G, subpart I, subpart J, subpart K, subpart L, subpart M, subpart N, subpart O, subpart X, subpart W, subpart AA, subpart BB, subpart CC, subpart EE, except 40 C.F.R. §§264.15(b)(5), 264.94(a)(2) and (3), 264.94(b) and (c), 264.100, 264.101, 264.112(d)(1), 264.115, 264.120, 264.221(f), 264.251(f), 264.301(f), 264.340(a) to (d), 264.344(a)(2) and (b), and 264.1200.
- (no) 40 C.F.R. §§264.1(j)(1) to (13), 264.71(a), ~~and (b)~~, **(f), and (h) to (k)**, 264.72, 264.73, 264.75(a)-(j), 264.94(a)(2), table 1, 264.141, 264.142, 264.144, 264.147(c), (d), and (f), 264.151(g), and 264.554, except 264.554(l).
- (op) 40 C.F.R. part 264, appendix I and appendix IX.
- (pq) 40 C.F.R. part 265, except subparts E, H, DD, and O, and 40 C.F.R. §§265.15(b)(5), 265.112(d)(1), 265.115, and 265.120.
- (qr) 40 C.F.R. part 265, appendices I and VI.
- (rs) 40 C.F.R. part 266, subpart H, except §§266.100(a) and (b), 266.101, 266.102(a), and 266.112(a) and (c).
- (st) 40 C.F.R. §§266.203 and 266.205(a), (b), (d), and (e).
- (tu) 40 C.F.R. part 266, appendices I through XIII.
- (uv) 40 C.F.R. part 268, including appendices II through XI.
- (vw) 40 C.F.R. §§270.10(e), (g), (k), and (l)(1); 270.11; 270.13; 270.14(b) and (d); 270.15; 270.16; 270.17; 270.18; 270.19(c); 270.20; 270.21; 270.22; 270.23; 270.24; 270.25; 270.26; 270.27; 270.30, except §270.30(l)(1) and (8); 270.31; 270.33; 270.41(a), except §270.41(a)(3); 270.62(a) to (d); 270.64; 270.66; 270.70; 270.71; 270.73; and 40 C.F.R. part 270, subpart H, except §§270.80, 270.85, 270.90, 270.155, 270.160, 270.190, 270.195, and 270.235(a) and (c).
- (wx) 40 C.F.R. part 273, subpart B, subpart C, subpart D, and subpart E, except §§273.10, 273.18(b), 273.30, 273.38(b), 273.50, 273.53, and 273.60.
- (xy) 40 C.F.R. §§279.22, except §279.22(a); 279.23, 279.24, 279.33, 279.41 to 279.43, 279.45, except §279.45(b); 279.46, 279.51, 279.52, 279.54, except §279.54(a); 279.55 to 279.58, 279.61, 279.62, 279.64, except §279.64(a); 279.65, 279.66, 279.73, and 279.75.
- (yz) 40 C.F.R. part 280.
- (aa) 40 C.F.R. part 302.**
- (zbb) 40 C.F.R. part 761.
- (2) Federal hazardous waste regulations are contained in **40 C.F.R. parts 1 to 49**, 40 C.F.R. part 60 (appendices), 40 C.F.R. part 63 (**Section 63.1200 to 63.1439**), 40 C.F.R. parts 100 to 135, 40 C.F.R. 136 to 149, 40 C.F.R. parts 260 to 265, 40 C.F.R. parts 266 to 299, and 40 C.F.R. part 700 to 789, July 1, 201**4**6 editions. These editions are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 202-512-1800, for \$**66**, 63, \$~~4056~~, \$**451**, \$67, \$56, \$56, and \$67, respectively, the costs at the time these rules were promulgated. Reprints of these federal registers are available from Solid Waste Information, U.S. EPA, 26 West St. Clair Street, Cincinnati, Ohio 45268, at no cost. The sections

adopted by reference in this rule are available for inspection and distribution at the Lansing office of the department.

R 299.11004 Federal regulations in 10 C.F.R., 29 C.F.R., 33 C.F.R., and 49 C.F.R.; adoption by reference.

Rule 1004. (1) The federal regulations in 10 C.F.R. part 20, 10 C.F.R. part 61, and 10 C.F.R. part 71 are adopted by reference in these rules.

(2) The federal regulations in 29 C.F.R. §§1910.120(q) and 1910.132 to 1910.138 and 29 C.F.R. part 1910, subpart L, are adopted by reference in these rules.

(3) The federal regulations in 33 C.F.R. §153.203 are adopted by reference in these rules.

(4) The following federal regulations in 49 C.F.R. are adopted by reference in these rules:

(a) 49 C.F.R. part 107.

(b) 49 C.F.R. part 130.

(c) 49 C.F.R. part 171.

(d) 49 C.F.R. part 172.

(e) 49 C.F.R. part 173.

(f) 49 C.F.R. part 174.

(g) 49 C.F.R. part 175.

(h) 49 C.F.R. part 176.

(i) 49 C.F.R. part 177.

(j) 49 C.F.R. part 178.

(k) 49 C.F.R. part 179.

(l) 49 C.F.R. part 180.

(m) 49 C.F.R. parts 190-199.

~~(nn)~~ 49 C.F.R. §390.21.

(5) Federal nuclear regulatory commission regulations are contained in 10 C.F.R. parts 1 to 50 and 10 C.F.R. parts 51 to 199, January 1, 201~~4~~**6** editions. Federal labor regulations are contained in 29 C.F.R. parts 1900 to 1910, July 1, 201~~4~~**6** editions. Federal navigation regulations are contained in 33 C.F.R. parts 125 to 199, July 1, 201~~4~~**6** edition. Federal transportation regulations are contained in 49 C.F.R. parts 100 to 177, 49 C.F.R. parts 178 to 199, and 49 C.F.R. parts 300 to 399, October 1, 201~~4~~**6** editions. These editions are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, for \$67, \$64, \$67, \$64, \$70, \$70, and \$37 respectively, the costs at the time these rules were promulgated. The sections adopted in this rule are available for inspection and distribution at the Lansing office of the department.

R 299.11005 Test methods for evaluating solid waste; adoption by reference.

Rule 1005. (1) Test methods in the publication entitled "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, Third Edition, November 1986, and its updates I (July 1992), II (September 1994), IIA (August 1993), IIB (January 1995), III (December 1996), IIIA (April 1998), IIIB (November 2004), IVA (February 2007), ~~and~~ **IVB (February 2007), and V (August 2015)** are adopted by reference in these rules.

(2) The documents listed in subrule (1) of this rule are available online from the United States EPA, Office of Solid Waste and Emergency Response, <https://www.epa.gov/epaoswer/hazardous-waste-test-methods-sw-846/main.htm>, at no cost. The **documents listed in subrule (1) of this rule EPA Publication SW-846, Third Edition, and updates I, II, IIA, IIB, III, and IIIA, PB20021057152002, and update IIIB, PB2003100855,** are available **for purchase** from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, ~~(703) 605-6000 or (800) 553-6847, for \$397 and \$47.50, respectively, the costs at the time these rules were promulgated~~ **or the Superintendent of Documents, U.S. Government Printing Office,**

Washington, DC 20402, 202-512-1800. The documents adopted in this rule are available for inspection and distribution at the Lansing office of the department, the Library, United States EPA, 401 M Street, SW, Washington, DC 20460, and the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC 20002.

R 299.11006 Analytical method for aflatoxins; adoption by reference.

Rule 1006. (1) The analytical method for aflatoxin in the official methods of analysis of the AOAC International, subsection 26, natural poisons, ~~4620~~th edition, ~~1995~~²⁰¹⁶, is adopted by reference in these rules.

(2) The analytical method listed in subrule (1) of this rule is available from AOAC International, ~~481 North Frederick Avenue, Suite 500, Gaithersburg~~^{2275 Research Boulevard, Suite 300, Rockville}, Maryland 20877~~50-3250~~⁵⁰⁻³²⁵⁰, ~~for \$50 at cost~~. The document adopted in this rule is available for inspection at the Lansing office of the department.