Chapter 1

Waste Regulations

PART 111 Rules of Act 451

R 299.9202 "Waste" explained.

(1) A waste is any discarded material that is not excluded by R 299.9204 or that is not excluded by a variance granted under R 299.9202(6) and (7). A discarded material is any material that is any of the following:
  (a) A material that is abandoned by being disposed of; burned or incinerated; or accumulated, stored, or treated before or instead of being abandoned by being disposed of, burned, or incinerated.
  (b) A material which is recycled, or accumulated, stored, or treated before recycling, and which meets 1 of the following criteria:
    (i) It is a material listed in subrule (2) of this rule and is used in a manner constituting disposal by being either of the following:
      (A) Applied to or placed on the land in a manner that constitutes disposal.
      (B) Used to produce products that are applied to or are placed on the land or are otherwise contained in products that are applied to or placed on the land, in which cases the product itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is applied to the land and that is its ordinary manner of use.
    (ii) It is a material listed in subrule (2) of this rule and it is burned to recover energy, is used to produce a fuel, or is otherwise contained in fuels, in which cases the fuel itself remains a waste. A commercial chemical product listed in R 299.9214 is not a waste if it is itself a fuel.
    (iii) It is a material listed in subrule (2)(a), (b), or (c) of this rule and it undergoes reclamation, except as provided for in R 299.9204(1)(v).
    (iv) It is a material listed in subrule (2)(a), (b), (c), or (d) of this rule and it undergoes speculative accumulation.
    (v) It is an inherently waste-like material, having a hazardous waste number of F020, F021, F022, F023, F026, or F028, or is another waste determined by the administrator based on both of the following criteria:
      (A) The materials are ordinarily disposed of, burned, or incinerated or the materials contain toxic constituents which are listed in 40 C.F.R. part 261, appendix VIII, and which are not ordinarily found in raw materials or products for which the materials substitute or are found in raw materials or products in smaller concentrations, and which are not used or reused during the recycling process.
      (B) The material might pose a substantial hazard to human health and the environment when recycled.
    (vi) It is an inherently waste-like material which is a secondary material, which is fed to a halogen acid furnace, and which exhibits a characteristic of a hazardous waste or is listed as a hazardous waste pursuant to part 2 of these rules, except for brominated material that meets all of the following criteria:
      (A) The material contains a bromine concentration of not less than 45%.
      (B) The material contains less than a total of 1% of the toxic organic compounds listed in 40 C.F.R. part 261, appendix VIII.
      (C) The material is processed continually on-site in the halogen acid furnace by direct conveyance such as hard piping.
  (c) It is a military munition identified as a waste under R 299.9817.

(2) Any of the following materials may be wastes under subrule (1) of this rule:
  (a) Spent materials.
  (b) Sludges and by-products listed in R 299.9220 to R 299.9222.
  (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.

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

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

R 299.9203 "Hazardous waste" explained.

(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 KO61, K062, or F006 waste which meet the generic exclusion levels specified in this subdivision and which do not exhibit any hazardous waste characteristic, and which are sent to a unit regulated under part 115 of the act, the person claiming the exclusion shall send a 1-time notification and certification to the director. The notification and certification shall be in compliance with all of the following provisions:
(A) The notification and certification shall be maintained at the facility.
(B) The notification and certification shall be updated by the person claiming the exclusion if the process or operation generating the waste changes or if the unit regulated under part 115 of the act that is receiving the waste changes. However, the director need only be notified on an annual basis, by the end of the calendar year, if a change occurs.
(C) The notification shall include all of the following information:
(1) The name and address of the unit regulated under part 115 of the act that is receiving the waste shipment.
(2) The site identification number and treatability group of the waste at the initial point of generation.
(3) The treatment standards applicable to the waste at the initial point of generation.
(D) The certification shall be signed by an authorized representative and shall include the following statement: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

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

(e) Catalyst inert support media separated from either or both of the following wastes listed in 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)(h) and a hazardous waste listed in R 299.9213 or R 299.9214 solely because it exhibits 1 or more of the characteristics of ignitability, corrosivity, or reactivity which is generated as a result of a cleanup conducted at the individual site of generation pursuant to part 31, part 111, part 201, part 213, or CERCLA.

(8) Hazardous waste that contains radioactive waste is no longer a hazardous waste when it meets the eligibility criteria and conditions of R 299.9822 and R 299.9823. This exclusion is limited to either of the following:
   (a) A mixture of a waste and an eligible radioactive mixed waste.
   (b) A waste generated from the treatment, storage, or disposal of an eligible radioactive mixed waste.

(9) The office of management and budget document entitled "Standard Industrial Classification Manual" is adopted by reference in R 299.11007.

R 299.9204 Exclusions.

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

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

(x) Hazardous secondary materials used to make zinc fertilizers, if the following conditions are met:
  (i) Hazardous secondary materials used to make zinc micronutrient fertilizers shall not be accumulated speculatively.
  (ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall comply with all of the following requirements:
    (A) Submit a 1-time notice to the director which contains the name, address, and site identification number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions of this subdivision.
    (B) Store the excluded secondary material in buildings, tanks, or containers that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers that are used for this purpose shall be kept closed except when it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that have containment structures or systems sufficiently

impervious to contain leaks, spills, and accumulated precipitation; provide for effective drainage and removal of leaks, spills, and accumulated precipitation; and prevent run-on into the containment system.

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

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

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

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

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

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

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

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

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

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

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

(A) Arsenic, 0.3 parts per million.

(B) Cadmium, 1.4 parts per million.

(C) Chromium, 0.6 parts per million.

(D) Lead, 2.8 parts per million.

(E) Mercury, 0.3 parts per million.

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

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

(z) Used CRTs that meet any of the following requirements:
(i) Used, intact CRTs unless they are disposed or are speculatively accumulated by CRT collectors or glass processors.
(ii) Used, intact CRTs when exported for recycling if they meet the requirements of R 299.9231(5).
(iii) Used, broken CRTs if they meet the requirements of R 299.9231(1) and (2).
(iv) Glass removed from CRTs if it meets the requirements of R 299.9231(3).

(2) The following wastes are not hazardous wastes for the purposes of part 111 of the act and these rules:
(a) Household waste, including household waste that has been collected, transported, stored, treated, disposed of, recovered, or reused. Household waste means any waste material, including garbage, trash, and sanitary wastes in septic tanks, that is derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility that manages municipal waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation pursuant to these rules if the facility is in compliance with both of the following provisions:
(i) Receives and burns only household waste from single and multiple dwellings, hotels, motels, and other residential sources and waste from commercial or industrial sources that does not contain hazardous waste.
(ii) Does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.
(b) Wastes which are generated by either of the following and which are returned to the soil as fertilizers:
(i) The growing and harvesting of agricultural crops.
(ii) The raising of animals, including animal manures.
(c) Mining overburden that is returned to the mine site.
(d) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste that is generated primarily from the combustion of coal or other fossil fuels, except as provided by 40 C.F.R. §266.112 for facilities that burn or process hazardous waste.
(e) Drilling fluids, produced waters, and other wastes that are associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.
(f) Wastes which fail the test for the toxicity characteristic because chromium is present or wastes that are listed in R 299.9213 or R 299.9214 due to the presence of chromium, which do not fail the test for the toxicity characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that all of the following provisions are met:
(i) The chromium in the waste is exclusively, or nearly exclusively, trivalent chromium.
(ii) The waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium.
(iii) The waste is typically and frequently managed in nonoxidizing environments.
(g) The following specific wastes that are in compliance with the standard in subdivision (f) of this subrule, if the wastes do not fail the test for the toxicity characteristic for any other constituent and do not fail the test for any other characteristic:
(i) Chrome (blue) trimmings generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan/wet finish.
(C) Retan/wet finish.
(D) No beamhouse.
(E) Through-the-blue.
(F) Shearling.

(ii) Chrome (blue) shavings generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan/wet finish.
(C) Retan/wet finish.
(D) No beamhouse.
(E) Through-the-blue.
(F) Shearling.

(iii) Buffing dust generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan/wet finish.
(C) Retan/wet finish.
(D) No beamhouse.
(E) Through-the-blue.

(iv) Sewer screenings generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan/wet finish.
(C) Retan/wet finish.
(D) No beamhouse.
(E) Through-the-blue.
(F) Shearling.

(v) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan wet finish.
(C) Retan/wet finish.
(D) No beamhouse.
(E) Through-the-blue.
(F) Shearling.

(vi) Wastewater treatment sludges generated by any of the following subcategories of the leather tanning and finishing industry:
(A) Hair pulp/chrome, tan/retan/wet finish.
(B) Hair save/chrome, tan/retan/wet finish.
(C) Through-the-blue.

(vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(viii) Wastewater treatment sludges from the production of Ti02 pigment using chromium-bearing ores by the chloride process.

(ix) Ink generated by United States postal service in its automated facer canceled systems.

(h) Waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided in 40 C.F.R. §266.112 for facilities that burn or process hazardous waste. For purposes of this subdivision, the following provisions apply:

(i) Beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briqueting; calcining to remove water or carbon dioxide, or both; roasting, autoclaving, or chlorination, or any combination thereof, in preparation for leaching, except where the roasting/leaching or autoclaving/leaching or chlorination/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in-situ leaching.

(ii) Waste from the processing of ores and minerals shall include only the following wastes as generated:
(A) Slag from primary copper processing.
(B) Slag from primary lead processing.
(C) Red and brown muds from bauxite refining.

(D) Phosphogypsum from phosphoric acid production.
(E) Slag from elemental phosphorus production.
(F) Gasifier ash from coal gasification.
(G) Process wastewater from coal gasification.
(H) Calcium sulfate wastewater treatment plant sludge from primary copper processing.
(I) Slag tailings from primary copper processing.
(J) Fluorogypsum from hydrofluoric acid production.
(K) Process wastewater from hydrofluoric acid production.
(L) Air pollution control dust/sludge from iron blast furnaces.
(M) Iron blast furnace slag.
(N) Treated residue from roasting/leaching of chrome ore.
(O) Process wastewater from primary magnesium processing by the anhydrous process.
(P) Process wastewater from phosphoric acid production.
(Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production.
(R) Basic oxygen furnace and open hearth furnace slag from carbon steel production.
(S) Chloride process waste solids from titanium tetrachloride production.
(T) Slag from primary zinc processing.

(iii) Residues derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remain excluded under subrule (2) of this rule if the owner or operator meets both of the following requirements:
(A) Processes at least 50 percent by weight normal beneficiation raw materials or normal mineral processing raw materials.
(B) Legitimately reclaims the secondary mineral processing materials.

(i) Mixtures of a waste that is excluded from regulation pursuant to subdivision (h) of this subrule and any other waste that exhibits a hazardous waste characteristic pursuant to R 299.9212 and that is not listed pursuant to R 299.9213 or R 299.9214, such that the resultant mixture does not exhibit any hazardous waste characteristic that would have been exhibited by the non-excluded waste alone if the mixture had not occurred.

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

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

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

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

(n) Non-terne plated used oil filters that are not mixed with wastes that are identified in R 299.9213 or R 299.9214, or both, if the oil filters have been gravity hot-drained using 1 of the following methods:
(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining.
(ii) Hot-draining and crushing.
(iii) Dismantling and hot-draining.
(iv) Any other equivalent hot-draining method that will remove used oil.

(o) Leachate or gas condensate collected from landfills where certain wastes have been disposed of provided that all of the following requirements are met:
(i) The wastes disposed would meet 1 or more of the listing descriptions for hazardous waste numbers K169, K170, K171, K172, K174, K175, K176, K177, K178, and K181 if these wastes had been generated after the effective date of the listing.
(ii) The wastes described in paragraph (i) of this subdivision were disposed before the effective date of the listing.
(iii) The leachate or gas condensate do not exhibit any characteristic of a hazardous waste and are not derived from any other listed hazardous waste.

(iv) The discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a publicly owned treatment works by truck, rail, or dedicated pipe, is subject to regulations under 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 (o) of this subrule after the emergency ends.

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

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

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

(ii) If the unit is a surface impoundment.

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

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

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

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

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

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

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

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

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

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

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

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

(c) The quantity of the sample.

(d) The date of shipment.

(e) A description of the sample.

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

(7) Persons who generate or collect samples for the purpose of conducting treatability studies as defined in R 299.9108 are not subject to the requirements of parts 2, 3, and 4 of these rules or the notification requirements of section 3010 of RCRA and the samples are not included in the quantity determinations specified in R 299.9205 and R 299.9306(4) when the sample is being collected and prepared for transportation by the generator or sample collector, the sample is being accumulated or stored by the

generator or sample collector before transportation to a laboratory or testing facility, or the sample is being transported to a laboratory or testing facility for the purpose of conducting a treatability study. The exemption specified in this subrule is applicable to samples of hazardous waste that are being collected and shipped for the purpose of conducting treatability studies if all of the following provisions are complied with:

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

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

(c) The sample shall be packaged and transported so that it will not leak, spill, or vaporize from its packaging during shipment and so that either of the following requirements are met:
   (i) The transportation of each sample shipment is in compliance with United States department of transportation, United States postal service, or any other applicable shipping requirements.
   (ii) If the DOT, United States postal service, or other shipping requirements do not apply to the shipment of the sample, all of the following information shall accompany the sample:
      (A) The name, mailing address, and telephone number of the originator of the sample.
      (B) The name, address, and telephone number of the facility that will perform the treatability study.
      (C) The quantity of the sample.
      (D) The date of the shipment.
      (E) A description of the sample, including its hazardous waste number.

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

(e) The generator or sample collector maintains all of the following records for 3 years after completion of the treatability study:
   (i) Copies of the shipping documents.
   (ii) A copy of the contract with the facility that conducts the treatability study.
   (iii) Documentation that shows all of the following information:
      (A) The amount of waste that is shipped pursuant to this exemption.
      (B) The name, address, and site identification number of the laboratory or testing facility that received the waste.
      (C) The date the shipment was made.
      (D) If unused samples and residues were returned to the generator.

(f) The generator reports the information required pursuant to subdivision (e)(iii) of this subrule as part of the data referenced in R 299.9308(1).

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

(a) A request for authorization to ship, store, and conduct treatability studies on, additional quantities in advance of commencing treatability studies. The director shall consider all of the following factors in determining whether to grant the request:
   (i) The nature of the technology.
   (ii) The type of process.
   (iii) The size of the unit undergoing testing, particularly in relation to scale-up considerations.
   (iv) The time and quantity of material required to reach steady state operating conditions.
   (v) Test design considerations such as mass balance calculations.

(b) A request for authorization to ship, store, and conduct treatability studies on, additional quantities after initiation or completion of initial treatability studies when any of the following occur:
   (i) There has been an equipment or mechanical failure during the conduct of a treatability study.
   (ii) There is a need to verify the results of a previously conducted treatability study.

(iii) There is a need to study and analyze alternative techniques within a previously evaluated treatment process.
(iv) There is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(9) The additional quantities and time frames allowed under subrule (8) of this rule are subject to this rule. The generator or sample collector shall apply to the director and shall provide, in writing, all of the following information:
(a) The reason why the generator or sample collector requires an additional quantity of the sample or time for the treatability study evaluation and the additional quantity or time needed.
(b) Documentation accounting for all samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies, including all of the following information:
(i) The date that each previous sample from the waste stream was shipped.
(ii) The sample quantity of each previous shipment.
(iii) The laboratory or testing facility to which the sample was shipped.
(iv) What treatability study processes were conducted on each sample shipped.
(v) The available results of each treatability study.
(c) A description of the technical modifications or change in specifications that will be evaluated and the expected results.
(d) If further study is being required due to equipment or mechanical failure, then the applicant shall include information regarding the reason for the failure and also include a description of what procedures were established, or what equipment improvements have been made, to protect against further equipment or mechanical failure.
(e) Other information that the director considers necessary.

(10) Samples that undergo treatability studies and the laboratory or testing facility that conducts the treatability studies, to the extent the facilities are not otherwise subject to the requirements of part 111 of the act or these rules, are not subject to any of the requirements of these rules or to the notification requirements of section 3010 of RCRA if the conditions of this subrule are met. A mobile treatment unit may qualify as a testing facility subject to this subrule. If a group of mobile treatment units is located at the same site, then the limitations specified in this subrule apply to the entire group of mobile treatment units collectively as if the group were 1 mobile treatment unit. The conditions are as follows:
(a) Not less than 45 days before conducting treatability studies, the facility shall notify the director, in writing, that it intends to conduct treatability studies pursuant to this rule.
(b) The laboratory or testing facility that conducts the treatability study has a site identification number.
(c) Not more than a total of 10,000 kilograms of "as received" media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, oR 250 kilograms of other "as received" hazardous waste is subjected to the initiation of treatment in all treatability studies in any single day. "As received" hazardous waste refers to waste as received in the shipment from the generator or sample collector.
(d) The quantity of "as received" hazardous waste that is stored at the facility for the purpose of evaluation in treatability studies is not more than 10,000 kilograms, the total of which may include 10,000 kilograms of media contaminated with nonacute hazardous waste, 2,500 kilograms of media contaminated with acute or severely toxic hazardous waste, 1,000 kilograms of nonacute hazardous waste other than contaminated media, and 1 kilogram of acute or severely toxic hazardous waste. The quantity limitation does not include treatment materials, including nonhazardous waste, that are added to "as received" hazardous waste.
(e) Not more than 90 days have elapsed since the treatability study for the sample was completed, or not more than 1 year, oR 2 years for treatability studies involving bioremediation, has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date occurs first.
(f) The treatability study does not involve the placement of hazardous waste on the land or the open burning of hazardous waste.
(g) The facility maintains records, for 3 years following completion of each study, that show compliance with the treatment rate limits, storage time, and quantity limits. All of the following specific information shall be included for each treatability study that is conducted:
(i) The name, address, and site identification number of the generator or sample collector of each waste sample.

(ii) The date the shipment was received.
(iii) The quantity of waste accepted.
(iv) The quantity of "as received" waste in storage each day.
(v) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day.
(vi) The date the treatability study was concluded.
(vii) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the site identification number.

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

(i) The facility prepares and submits a report to the director by March 15 of each year that includes all of the following information for the previous calendar year:
(i) The name, address, and site identification number of the facility conducting the treatability studies.
(ii) The types, by process, of treatability studies conducted.
(iii) The names and addresses of persons for whom studies have been conducted, including their site identification numbers.
(iv) The total quantity of waste in storage each day.
(v) The total quantity and types of waste subjected to treatability studies.
(vi) When each treatability study was conducted.
(vii) The final disposition of residues and unused sample from each treatability study.

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

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

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

(12) Dredged material, as defined in 40 C.F.R. §232.2, that is subject to the requirements of a permit that has been issued pursuant to section 404 of the federal water pollution control act, 33 U.S.C. §1344, or section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413, is not a hazardous waste for the purposes of part 111 of the act and these rules. For the purposes of this exemption, "permit" means any of the following:
(a) A permit issued by the U.S. army corps of engineers or an approved state under section 404 of the federal water pollution control act, 33 U.S.C. §1344.
(b) A permit issued by the U.S. army corps of engineers under section 103 of the marine protection, research, and sanctuaries act of 1972, 33 U.S.C. §1413.
(c) In the case of U.S. army corps of engineers civil works projects, the administrative equivalent of the permits referred to in subdivisions (a) and (b) of this subrule, as provided for in the U.S. army corps of engineers regulations.

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

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

(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.

R 299.9206 Requirements for recyclable materials.

(1) Except as provided in subrules (2) to (5) of this rule, recyclable materials are subject to all of the following requirements:
(a) Generators and transporters of recyclable materials are subject to the applicable requirements of parts 3 and 4 of these rules.
(b) Owners or operators of facilities that store recyclable materials before they are recycled are regulated pursuant to all applicable provisions of parts 5, 6, 7, and 8 of these rules. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.
(c) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the identification number requirements of 40 C.F.R. §264.11 and the manifest requirements of R 299.9608. The recycling process itself is exempt from regulation, except as provided in subdivision (d) of this subrule.
(d) A hazardous waste management unit in which recyclable materials are recycled is subject to the requirements of 40 C.F.R. part 265, subparts AA and BB if the unit is located at a facility that is described in R 299.9601(3)(a) or (b), or the requirements of R 299.9630 and R 299.9631 if the unit is located at a facility subject to the 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 point 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 299.9210 Removal from hazardous waste listings.

(1) A petition may be made to the director for removal from listing in this part any listed waste or hazardous waste constituent, except those determined by the administrator to be hazardous in the provisions of 40 C.F.R. part 261. The petition shall be accompanied by substantiating data and references taken from scientific literature which challenges the validity of the data which led to the waste or waste constituent listing. Data supplied shall be reviewed and evaluated by the director. If the petition is granted, rule change procedures, as outlined in act 306, shall be initiated for delisting of the waste or constituent. If the petition is not granted, the director shall inform the generator of the reasons why within 180 days of receipt of such a petition.

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

R 299.9211 Petitions to exclude waste produced at a particular facility.

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

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

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

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

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

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

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

(c) If the waste is treated, stored, or disposed of as part of closure or partial closure of a treatment, storage, or disposal facility or if the waste is contaminated soil deemed hazardous under R 299.9203(1) or R 299.9214 due to its mixture with a hazardous waste, petition the director to exclude the waste at the particular facility from regulation under these rules. The petition shall contain that information specified in 40 C.F.R. §§260.20(b) and 260.22. After receiving a complete petition under subrule (3) of this rule, the director shall do all of the following:
   (i) Make a tentative decision to grant or deny the petition based on the criteria specified in 40 C.F.R. §260.22.
   (ii) Public notice the tentative decision and provide 30 days for public comment.
   (iii) After evaluating all public comments, make a final decision on the petition. The director shall grant the petition if the criteria specified in 40 C.F.R. §260.22 are met.

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

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

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

R 299.9212 Characteristics of hazardous waste.

(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 entigrade (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-93-11, 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 D6450-05, 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 299.9213 Lists of hazardous wastes from nonspecific and specific sources.

(1) The following wastes are hazardous wastes unless excluded pursuant to the provisions R 299.9211:
(a) Wastes from nonspecific sources listed by the administrator and identified in table 203a of these rules.
(b) Wastes from specific sources listed by the administrator and identified in table 204a of these rules.
(2) Each hazardous waste that is listed in subrule (1) of this rule is assigned a hazardous waste number which precedes the name of the waste on the table in which it is listed. The number shall be used in complying with the notification requirements and the recordkeeping and reporting requirements of these rules.
(3) The EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027 are subject to the exclusion limits for acutely hazardous wastes established in R 299.9205.
(4) For the purposes of the EPA hazardous waste numbers F037 and F038 listings, aggressive biological treatment units are defined as those units that employ 1 of the following 4 treatment methods:
(a) Activated sludge.
(b) Trickling filter.
(c) Rotating biological contactor for the continuous accelerated biological oxidation of wastewaters.

(d) High-rate aeration. High-rate aeration is a system of surface impoundments or tanks in which intense mechanical aeration is used to completely mix the wastes and enhance biological activity. High-rate aeration systems shall be composed of units that employ a minimum of 6 horsepower per million gallons of treatment volume and either the hydraulic retention time of the unit is no longer than 5 days, or the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is hazardous waste by the toxicity characteristic.

(5) Generators and facility owners and operators shall demonstrate that their sludges are not subject to being listed as F037 or F038, or both, wastes pursuant to the provisions of subrule (4) of this rule. Generators and facility owners and operators shall maintain, in their operating or other on-site records, documents and data sufficient to demonstrate that the unit is an aggressive biological treatment unit as defined in subrule (4) of this rule and that the sludges sought to be exempted from the definitions of F037 or F038, or both, wastes were actually generated in the aggressive biological treatment unit.

(6) For the purposes of the EPA hazardous waste number F037 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement.

(7) For the purposes of the EPA hazardous waste number F038 listing, sludges are considered to be generated at the moment of deposition in the unit, where deposition is defined as at least a temporary cessation of lateral particle movement, and floats are considered to be generated at the moment they are formed in the top of the unit.

R 299.9214 Discarded commercial chemical products, off-specification species, containers, container residues, and spill residues as hazardous wastes.

(1) The following materials or items are hazardous wastes when they are discarded or intended to be discarded as described in R 299.9202(1)(a), when they are burned for energy recovery instead of their original intended use, when they are used to produce fuels instead of their intended use, when they are applied to the land instead of their intended use, or when they are contained in products that are applied to the land instead of their original intended use:

(a) Any commercial chemical product or manufacturing chemical intermediate having the generic name in tables 205a, 205b, and 205c of these rules.

(b) Any off-specification commercial chemical product or manufacturing intermediate which, if it met specifications, would have the generic name listed in tables 205a, 205b, and 205c of these rules.

(c) Any residue that remains in a container or in an inner liner which is removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic names listed in tables 205a, 205b, and 205c of these rules, unless the container is empty as defined in R 299.9207.

(d) Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into any water or on any land of any commercial chemical product, a manufacturing chemical intermediate having the generic name listed in tables 205a, 205b, and 205c of these rules, any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill into any water or on any land of any off-specification chemical product, and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in tables 205a, 205b, and 205c of these rules.

(2) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed by the administrator and identified in table 205a are acutely hazardous wastes (H) and are subject to the small quantity exclusion defined in R 299.9205.

(3) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed by the administrator and identified in table 205b are toxic wastes (T) and are subject to the small quantity exclusion defined in R 299.9205.

(4) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products listed in table 205c of these rules have been determined to be hazardous by the director, are identified as toxic wastes (T), and are subject to the small quantity exclusion defined in R 299.9205(1).

(5) As used in subrule (1) of this rule, the phrases "commercial chemical product," "manufacturing chemical intermediate," "off-specification commercial chemical product," and "manufacturing chemical intermediate" refer to materials that are manufactured or formulated for commercial or manufacturing use. The phrases do not refer to materials, such as manufacturing process wastes, that contain any of the substances listed in tables 205a, 205b, or 205c of these rules.

(6) Each hazardous waste listed in subrule (1) of this rule is assigned the hazardous waste number in tables 205a, 205b, or 205c of these rules that corresponds to the constituent which caused the waste to be

hazardous. With regard to a mixture of hazardous wastes, a number shall be assigned in the following priority order based upon the wastes or constituents present:

(a) Acutely hazardous, from table 205a.
(b) Toxic, from table 205b.
(c) Toxic, from table 205c of these rules. If the constituents are listed in the same table, the number assigned shall correspond to the constituents present in the greatest amount on a weight basis.

(3) After receiving a petition for an equivalent method, the director, or his or her designee, shall, within 120 days of receiving the petition, request any additional information on the proposed method which he or she may reasonably require to evaluate the method. If the petition is granted, the director shall initiate rule change procedures under act 306.

(4) The provisions of 40 C.F.R. §§260.20(b) and 260.21(b) are adopted by reference in R 299.11003.

R 299.9216 Method of analysis.

Rule 216. (1) The method of analysis specified in the provisions of appendix I of 40 C.F.R. part 261 shall be used to identify the hazardous constituents listed in appendices VII and VIII of 40 C.F.R. part 261. Alternate methods of analysis may be used if approved by the director.

(2) The provisions of 40 C.F.R. part 261, appendices I, VII, and VIII 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-dimenthano naphthalene)	0.02

Table 201a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Material	Extract Concentration milligrams per liter
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
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 ($C_{10}H_{10}C1_8$, 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 299.9218 Rescinded.

R 299.9219 Table 202.

Rule 219. Table 202 reads as follows:

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Table 202	
Michigan Hazardous Waste Number	Substance
001S	Aflatoxin
002S	2,3,7,8-Tetrachlorodibenzo-p-dioxin
003S	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
004S	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin
005S	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin
006S	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
007S	2,3,7,8-Tetrachloridibenzo furan

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 alcohol, cyclohexanone, and methanol; all spent solvent mixtures and blends containing, before use, only the above spent nonhalogenated solvents; and all spent solvent mixtures or blends, containing before use, one or more of the above nonhalogenated solvents, and a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005 and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I)

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Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
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 one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(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 one or more of the above nonhalogenated solvents or those solvents listed in F001, F002 and F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(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	Quenchine 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	(T)

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Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	act; 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 CFR §§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	(T)

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Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	R 299.9213(1)(a) or R 299.9214(1)(a)	
F025	Condensed light ends, spent filters and filter acids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from 1 to 5, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use as a reactant, chemical intermediate, or component in a formulating process of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulation containing compounds derived from these chlorophenols. This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA hazardous waste numbers F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 hazardous waste number deleted pursuant to 40 C.F.R. §261.35 or potentially cross-contaminated wastes that are otherwise currently regulated as F034 or F035, and where the generator does not resume or initiate the use of chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F034	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	(T)
F035	Wastewaters, except for those that have not come into contact with process contaminants; process residuals; preservative drippage; and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This	(T)

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Table 203a		
EPA Hazardous Waste Number	Hazardous Waste From Nonspecific Sources	Hazard Code
	listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both.	
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 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)(l) if those residuals are being disposed.	(T)
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 299.9221 Rescinded.

R 299.9222 Table 204a; hazardous wastes from specific sources.
Rule 222. Table 204a reads as follows:

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
Wood Preservation	K001	Bottom sediment sludge from the treatment of wastewaters from wood-preserving processes that use creosote or pentachlorophenol, or both of these compounds	(T)
Inorganic Pigments	K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
	K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
	K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
	K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
	K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated forms	(T)
	K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
	K008	Oven residue from the production of chrome oxide green pigments	(T)
Organic Chemicals	K009	Distillation bottoms from the production of chemicals acetaldehyde from ethylene	(T)
	K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)
	K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
	K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
	K015	Still bottoms from the distillation of benzyl chloride	(T)
	K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
	K017	Heavy ends or still bottoms from the purification column in the production of epichlorohydrin	(T)
	K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
	K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
	K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
	K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
	K022	Distillation bottom tars from the production of phenol or acetone from cumene	(T)
	K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
	K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
	K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
	K026	Stripping still tails from the production of methyl ethyl pyridines	(T)
	K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
	K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
	K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
	K083	Distillation bottoms from aniline production	(T)
	K085	Distillation of fractionation column bottoms from the production of chlorobenzenes	(T)
	K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
	K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
	K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
	K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	(T)
	K103	Process residues from aniline extraction from the production of aniline	(T)
	K104	Combined wastewater streams generated from nitrobenzene or aniline production	(T)
	K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
	K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)
	K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
	K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
	K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
	K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
	K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
	K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane	(T)
	K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	(T)
	K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides,	(T)

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
		and compounds with mixtures of these functional groups. This waste does not include still bottoms from the distillation of benzyl chloride.	
	K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
	K151	Wastewater treatment sludges, excluding *neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
	K156	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K157	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K158	Baghouse dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.	(T)
	K159	Organics from the treatment of thiocarbamate wastes	(T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K161	Purification solids, including filtration, evaporation, and centrifugation solids, bag house dust, and floor sweepings from the production of dithiocarbamates acids and their salts. This listing does not include K125 or K126.	(R,T)
	K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges meet the following conditions: (1) they are disposed of in a hazardous waste landfill or a nonhazardous waste landfill licensed or permitted by the state or federal government, (2) they are not otherwise placed on the land before final disposal, and (3) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of RCRA or part 111 of the act must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth herein. In doing so, they must provide appropriate documentation, such as contracts between the generator and the landfill owner/operator or invoices documenting delivery of the waste to the landfill, that the terms of the exclusion were met.	(T)
	K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	(T)

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K181	Nonwastewaters from the production of dyes or pigments, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the K181 listing constituents identified in 40 C.F.R. §261.32(c) that are equal to or greater than the listing levels identified in 40 C.F.R. §261.32(c), as determined on a calendar year basis. These wastes shall not be considered hazardous if the nonwastewaters are managed in compliance with the requirements for this listing as outlined in of 40 C.F.R. §261.32(a). For the purposes of this listing, dyes or pigments production is defined to include manufacture of the following product classes: dyes, pigments, or federal food and drug administration certified colors that are classified as azo, triarylmethane, perylene, or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes or pigments manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes or pigments, are not included in this listing. The process for demonstrating that a facility's nonwastewaters are not K181 is contained in 40 C.F.R. §261.32(d). This K181 listing does not apply to wastes that are otherwise identified as hazardous waste under R 299.9212, R 299.9217, R 299.9220, R 299.9222, R 299.9224, or R 299.9225 at the point of generation. Also, the listing does not apply to the wastes generated before any annual mass loading limit is met.	(T)
Inorganic	K071	Brine purification muds from the mercury cell process in chlorine production, where	(T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
Chemicals		separately prepurified brine is not used	
	K073	Chlorinated hydrocarbon wastes from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
	K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
	K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates	(E)
	K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates	(T)
	K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	(T)
Pesticides	K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
	K032	Wastewater treatment sludge from the production of chlordane	(T)
	K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
	K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
	K035	Wastewater treatment sludges generated in the production of creosote	(T)
	K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
	K037	Wastewater treatment sludges from the production of disulfoton	(T)
	K038	Wastewater from the washing and stripping of	(T)

Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
		phorate production	
	K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
	K040	Wastewater treatment sludge from the production of phorate	(T)
	K041	Wastewater treatment sludge from the production of toxaphene	(T)
	K042	Heavy ends of distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
	K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
	K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
	K098	Untreated process wastewater from the production of toxaphene	(T)
	K099	Untreated wastewater from the production of 2,4-D	(T)
	K123	Process wastewater, including supernates, filtrates, and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt	(T)
	K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salt	(C,T)
	K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salt	(T)
	K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
	K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(C,T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
	K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	(T)
Explosives	K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(I)
	K045	Spent carbon from the treatment of wastewater containing explosives	(I)
	K046	Wastewater treatment sludges from the manufacturing, formulation, and loading of lead-based initiating compounds	(T)
	K047	Pink or red water from TNT operations	(I)
Petroleum Refining	K048	Dissolved air floatation, DAF, float from the petroleum refining industry	(T)
	K049	Slop oil emulsion solids from the petroleum refining industry	(T)
	K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
	K051	API separator sludge from the petroleum refining industry	(T)
	K052	Tank bottoms, leaded, from the petroleum refining industry	(T)
	K169	Crude oil storage tank sediment from petroleum refining operations	(T)
	K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations	(T)
	K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support media.	(I, T)
	K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors. This listing does not include inert support	(I, T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
		media.	
Iron and Steel	K061	Emission control dust or sludge from the primary production of steel in electric furnaces	(T)
	K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry	(C,T)
Primary Aluminum	K088	Spent potliners from primary aluminum reduction	(T)
Secondary Lead	K069	Emission control dust or sludge from secondary lead smelting. (This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further action is taken by the EPA and notice published in the Federal Register.)	(T)
	K100	Waste leaching solution from acid leaching of emission control dust sludge from secondary lead smelting	(T)
Veterinary Pharma-ceuticals	K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
Ink Formulation	K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)

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Table 204a			
Industry	EPA Hazardous Waste Number	Hazardous Waste From Specific Sources	Hazard Code
Coking	K060	Ammonia still lime sludge from coking operations	(T)
	K087	Decanter tank tar sludge from coking operations	(T)
	K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087.	(T)
	K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
	K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)
	K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	(T)
	K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
	K147	Tar storage tank residues from coal tar refining	(T)
	K148	Residues from coal tar distillation, including, but not limited to, still bottoms	(T)

R 299.9223 Rescinded.

R 299.9224 Table 205a; discarded commercial chemical products; off-specification species; container residues; and spill residues thereof as acutely hazardous wastes.

Rule 224. Table 205a reads as follows:

Table 205a

EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
P023	107-20-0	Acetaldehyde, chloro-	
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-	
P057	640-19-7	Acetamide, 2-fluoro-	
P058	62-74-8	Acetic acid, fluoro-, sodium salt	
P002	591-08-2	1-Acetyl-2-thiourea	
P003	107-02-8	Acrolein	
P070	116-06-3	Aldicarb	
P203	1646-88-4	Aldicarb sulfone	
P004	309-00-2	Aldrin	
P005	107-18-6	Allyl alcohol	
P006	20859-73-8	Aluminum phosphide	(R,T,)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol	
P008	504-24-5	4-Aminopyridine	
P009	131-74-8	Ammonium picrate	(R)
P119	7803-55-6	Ammonium vanadate	
P099	506-61-6	Argentate (1-), bis(cyano-C)-, potassium	
P010	7778-39-4	Arsenic acid	
P012	1327-53-3	Arsenic (III) oxide	
P011	1303-28-2	Arsenic (V) oxide 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	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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-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	0,0-Diethyl 0-pyrazinyl phosphorothioate	
P043	55-91-4	Diisopropyl fluorophosphate	
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5alpha,8alpha,8abeta)-	
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha,4alpha,4abeta, 5beta,8beta,8abeta)-	
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2aalpha, 3beta,6beta,6aalpha,7beta,7aalpha)-	
P051	72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta,2abeta,3alpha, 6alpha,6abeta,7beta, 7aalpha)-, & metabolites	
P044	60-51-5	Dimethoate	
P046	122-09-8	alpha,alpha-Dimethylphenethylamine	
P191	644-64-4	Dimetilan	
P047	534-52-1	4,6-Dinitro-o-cresol and salts	
P048	51-28-5	2,4-Dinitrophenol	
P020	88-85-7	Dinoseb	
P085	152-18-9	Diphosphoramide, 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] oxyl]-, 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	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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(dimethylcarbamodithioato-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-[[(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-Methyllactonitrile	
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 nitrogren (IV) oxide	
P076	10102-43-9	Nitrogen (II) oxide	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
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)	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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-o1	
P067	75-55-8	1,2-Propylenimine	
P102	107-19-7	2-Propyn-1-o1	
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	
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	

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Table 205a			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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(dismethylcarbamodithioato-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)-	
U005	53-96-3	Acetamide, N-9H-fluoren-2-y1-	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U240	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters	
U112	141-78-6	Acetic acid, ethyl ester	(I)
U144	301-04-2	Acetic acid, lead(2+) salt	
U214	563-68-8	Acetic acid, thallium(1+) salt	
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-	
U002	67-64-1	Acetone	(I)
U003	75-05-8	Acetonitrile	(I,T)
U004	98-86-2	Acetophenone	
U005	53-96-3	2-Acetylaminofluorene	
U006	75-36-5	Acetyl chloride	(C,R,T)
U007	79-06-1	Acrylamide	
U008	79-10-7	Acrylic acid	(I)
U009	107-13-1	Acrylonitrile	
U011	61-82-5	Amitrole	
U012	62-53-3	Aniline	(I,T)
U136	75-60-5	Arsinic acid, dimethyl-	
U014	492-80-8	Auramine	
U015	115-02-6	Azaserine	
U010	50-07-7	Azirino(2',3':3,4)pyrrolo (1,2-a)indole-4,7-dione,6-amino-8-[((aminocarbonyl)oxy) methyl]-1,1a,2,8,8a,8b hexahydro-8a-methoxy-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	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U181	99-55-8	Benzenamine, 2-methyl-5-nitro	
U019	71-43-2	Benzene	(I,T)
U038	510-15-8	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl 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	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-	
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-	
U090	94-58-6	1,3-Benzodioxole, 5-propyl-	
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-	
U064	189-55-9	Benzo[rst]pentaphene	
U248	81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less	
U022	50-32-8	Benzo[a]pyrene	
U197	106-51-4	p-Benzoquinone	
U023	98-07-7	Benzotrichloride	(C,R,T)
U085	1464-53-5	2,2'-Bioxirane	(I,T)
U021	92-87-5	(1,1'-Biphenyl)-4,4'-diamine	
U073	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-	
U091	119-90-4	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-	
U095	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-	
U225	75-25-2	Bromoform	
U030	101-55-3	4-Bromophenyl phenyl ether	
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-	
U031	71-36-3	1-Butanol	(I)
U159	78-93-3	2-Butanone	(I,T)
U160	1338-23-4	2-Butanone peroxide	(R,T)
U053	4170-30-3	2-Butenal	
U074	764-41-0	2-Butene, 1,4-dichloro-	(I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxybutoyx]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-y1 ester, [1S-[1alpha(Z),7(2S*,3R*), 7aalpha]]-	
U031	71-36-3	n-Butyl alcohol	(I)
U136	75-60-5	Cacodylic acid	
U032	13765-19-0	Calcium chromate	
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester	
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	
U238	51-79-6	Carbamic acid, ethyl ester	
U178	815-53-2	Carbamic acid, methylnitroso-, ethyl ester	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester	
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis(iminocarbonothioyl)]bis-, dimethyl ester	
U097	79-44-7	Carbamic chloride, dimethyl	
U114	111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters	
U062	2303-16-4	Carbamodithioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-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,	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		2alpha,3beta,4alpha, 5alpha,6beta)-	
U057	108-94-1	Cyclohexanone	(I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-	
U058	50-18-0	Cyclophosphamide	
U240	94-75-7	2,4-D, salts and esters	
U059	20830-81-3	Daunomycin	
U060	72-54-8	DDD	
U061	50-29-3	DDT	
U062	2303-16-4	Diallate	
U063	53-70-3	Dibenz[a,h]anthracene	
U064	189-55-9	Dibenz[a,i]pyrene	
U066	96-12-8	1,2-Dibromo-3-chloropropane	
U069	84-74-2	Dibutyl phthalate	
U070	95-50-1	o-Dichlorobenzene	
U071	541-73-1	m-Dichlorobenzene	
U072	106-46-7	p-Dichlorobenzene	
U073	91-94-1	3,3'-Dichlorobenzidine	
U074	764-41-0	1,4-Dichloro-2-butene	(I,T)
U075	75-71-8	Dichlorodifluoromethane	
U078	75-35-4	1,1-Dichloroethylene	
U079	156-60-5	1,2-Dichloroethylene	
U025	111-44-4	Dichloroethyl ether	
U027	108-60-1	Dichloroisopropyl ether	
U024	111-91-7	Dichloromethoxy ethane	
U081	120-83-2	2,4-Dichlorophenol	
U082	87-65-0	2,6-Dichlorophenol	
U084	542-75-6	1,3-Dichloropropene	
U085	1464-53-5	1,2:3,4-Diepoxybutane	(I,T)
U108	123-91-1	1,4-Diethylene dioxide	
U395	5952-26-1	Diethylene glycol, dicarbamate	
U028	117-81-7	Diethylhexyl phthalate	
U086	1615-80-1	N,N-Diethylhydrazine	
U087	3288-58-2	O,O-Diethyl-S-methyl-dithiophosphate	
U088	84-66-2	Diethyl phthalate	
U089	56-53-1	Diethylstilbestrol	
U090	94-58-6	Dihydrosafrole	
U091	119-90-4	3,3'-dimethoxybenzidine	
U092	124-40-3	Dimethylamine	(I)
U093	60-11-7	Dimethylaminoazobenzene	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U094	57-97-6	7,12-Dimethylbenz[a]anthracene	
U095	119-93-7	3,3'-Dimethylbenzidine	
U096	80-15-9	Alpha,alpha-Dimethyl-benzylhydroperoxide	(R)
U097	79-44-7	Dimethylcarbamoyl chloride	
U098	57-14-7	1,1-Dimethylhydrazine	
U099	540-73-8	1,2-Dimethylhydrazine	
U101	105-67-9	2,4-Dimethylphenol	
U102	131-11-3	Dimethyl phthalate	
U103	77-78-1	Dimethyl sulfate	
U105	121-14-2	2,4-Dinitrotoluene	
U106	606-20-2	2,6-Dinitrotoluene	
U107	117-84-0	Di-n-octyl phthalate	
U108	123-91-1	1,4-Dioxane	
U109	122-66-7	1,2-Diphenylhydrazine	
U110	142-84-7	Dipropylamine	(I)
U111	621-64-7	Di-n-propylnitrosamine	
U041	106-89-8	Epichlorhydrin	
U001	75-07-0	Ethanal	(I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-	
U404	121-44-8	Ethanamine, N,N-diethyl-	
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	
U067	106-93-4	Ethane, 1,2-dibromo-	
U076	75-34-3	Ethane, 1,1-dichloro-	
U077	107-06-2	Ethane, 1,2-dichloro-	
U131	67-72-1	Ethane, 1,1,1,2,2,2-hexachloro-	
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-	
U117	60-29-7	Ethane, 1,1'-oxybis-	(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-	
U184	76-01-7	Ethane, pentachloro-	
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-	
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-	
U218	62-55-5	Ethanethioamide	
U226	71-55-6	Ethane, 1,1,1-trichloro-	
U227	79-00-5	Ethane, 1,1,2-trichloro-	
U410	59669-26-0	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester	
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-n-hydroxy-2-oxo- methyl ester	
U359	110-80-5	Ethanol, 2-ethoxy-	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-	
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate	
U004	98-86-2	Ethanone, 1-phenyl	
U043	75-01-4	Ethene, chloro-	
U042	110-75-8	Ethene, 2-chloroethoxy-	
U078	75-35-4	Ethene, 1,1-dichloro-	
U079	156-60-5	Ethene, trans-1,2-dichloro-	
U210	127-18-4	Ethene, 1,1,2,2-tetrachloro-	
U228	79-01-6	Ethene, trichloro-	
U112	141-78-8	Ethyl acetate	(I)
U113	140-88-5	Ethyl acrylate	(I)
U238	51-79-6	Ethyl carbamate (urethan)	
U117	60-29-7	Ethyl ether	(I)
U114	111-54-6	Ethylenebis(dithiocarbamic acid), salts and ester	
U067	106-93-4	Ethylene dibromide	
U077	107-06-2	Ethylene dichloride	
U359	110-80-5	Ethylene glycol monoethyl ether	
U115	75-21-8	Ethylene oxide	(I,T)
U116	96-45-7	Ethylene thiourea	
U076	75-34-3	Ethylidene dichloride	
U118	97-63-2	Ethyl methacrylate	
U119	62-50-0	Ethyl methanesulfonate	
U120	206-44-0	Fluoranthene	
U122	50-00-0	Formaldehyde	
U123	64-18-6	Formic acid	(C,T)
U124	110-00-9	Furan	(I)
U125	98-01-1	2-Furancarboxaldehyde	(I)
U147	108-31-6	2,5-Furandione	
U213	109-99-9	Furan, tetrahydro-	(I)
U125	98-01-1	Furfural	(I)
U124	110-00-9	Furfuran	(I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, 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	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
U131	67-72-1	Hexachloroethane	
U132	70-30-4	Hexachlorphene	
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_2S	
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-	(R)
U116	96-45-7	2-Imidazolidinethione	
U137	193-39-5	Indeno[1,2,3cd]pyrene	
U190	85-44-9	1,3-Isobenzofurandione	
U140	78-83-1	Isobutyl alcohol	(I,T)
U141	120-58-1	Isosafrole	
U142	143-50-0	Kepone	
U143	303-34-4	Lasiocarpine	
U144	301-04-2	Lead acetate	
U146	1335-32-6	Lead, bis(acetato-O) tetrahydroxytri-	
U145	7446-27-7	Lead phosphate	
U146	1335-32-6	Lead subacetate	
U129	58-89-9	Lindane	
U163	70-25-7	MNNG	
U147	108-31-6	Maleic anhydride	
U148	123-33-1	Maleic hydrazide	
U149	109-77-3	Malononitrile	
U150	148-82-3	Melphalan	
U151	7439-97-6	Mercury	
U152	126-98-7	Methacrylonitrile	(I,T)
U092	124-40-3	Methanamine, N-methyl-	(I)
U029	74-83-9	Methane, bromo-	
U045	74-87-3	Methane, chloro-	(I,T)
U046	107-30-2	Methane, chloromethoxy-	
U068	74-95-3	Methane, dibromo-	
U080	75-09-2	Methane, dichloro-	
U075	75-71-8	Methane, dichlorodifluoro-	
U138	74-88-4	Methane, iodo-	
U119	62-50-0	Methanesulfonic acid, ethyl ester	

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

Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
		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	
See F027	87-86-5	Pentachlorophenol	
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)-	

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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-trichlorphenoxy)-	
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)	
U140	78-83-1	1-Propanol, 2-methyl-	(I,T)
U002	67-64-1	2-Propanone	(I)
U007	79-06-1	2-Propenamide	
U084	542-75-6	Propene, 1,3-dichloro-	
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-	
U009	107-13-1	2-Propenenitrile	
U152	126-98-7	2-Propenenitrile, 2-methyl-	(I,T)
U008	79-10-7	2-Propenoic acid	(I)
U113	140-88-5	2-Propenoic acid, ethyl ester	(I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester	(I,T)

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Table 205b			
EPA Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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 selenious 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-Terachloroethane	
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 $[(H_2N)C(S)]_2S_2$, tetramethyl-	
U409	23564-05-8	Thiophanate-methyl	
U219	62-56-6	Thiourea	

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

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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	
004U	60-09-3	Aminoazobenzene	
005U	97-56-3	0-aminoazotoluene	
006U	92-67-1	4-aminobiphenyl	
007U	132-32-1	3-amino-9-ethyl carbazole	
157U	57360-17-5	3-amino-9-ethyl carbazole hydrochloride	
008U	82-28-0	1-amino-2-methyl anthraquinone	
009U	101-05-3	Anilazine	
158U	142-04-1	Aniline hydrochloride	
011U	90-04-0	o-Anisidine	
012U	134-29-2	o-Anisidine hydrochloride	
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	

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Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
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 phosphoramide	
070U	123-31-9	Hydroquinone	
071U	1072-52-2	N-(2-Hydroxyethyl) ethyleneimine	
073U	54-85-3	Isonicotinic acid hydrazine	
167U	59299-51-3	Kanechlor C	
074U	463-51-4	Ketene	
075U	78-97-7	Lactonitril	
076U	21609-90-5	Leptophos	
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	

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Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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	
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	

Table 205c			
Michigan Hazardous Waste Number	Chemical Abstract Services Number	Substance	Hazard Code
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).

is also known as industrial or new scrap metal.

[45 FR 33119, May 19, 1980, as amended at 48 FR 14293, Apr. 1, 1983; 50 FR 663, Jan. 4, 1985; 51 FR 10174, Mar. 24, 1986; 51 FR 40636, Nov. 7, 1986; 62 FR 26018, May 12, 1997]

§261.2 Definition of solid waste.

(a)(1) A *solid waste* is any discarded material that is not excluded by §261.4(a) or that is not excluded by variance granted under §§260.30 and 260.31.

(2) A *discarded material* is any material which is:

(i) *Abandoned,* as explained in paragraph (b) of this section; or

(ii) *Recycled,* as explained in paragraph (c) of this section; or

(iii) Considered *inherently waste-like,* as explained in paragraph (d) of this section; or

(iv) *A military munition* identified as a solid waste in 40 CFR 266.202.

(b) Materials are solid waste if they are *abandoned* by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned, or incinerated.

(c) Materials are solid wastes if they are *recycled*—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section.

(1) *Used in a manner constituting disposal.* (i) Materials noted with a "*" in Column 1 of Table 1 are solid wastes when they are:

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

(B) Used to produce products that are applied to or 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 solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) *Burning for energy recovery.* (i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself remains a solid waste).

(ii) However, commercial chemical products listed in §261.33 are not solid wastes if they are themselves fuels.

(3) *Reclaimed.* Materials noted with a "*" in column 3 of Table 1 are solid wastes when reclaimed (except as provided under §261.4(a)(17)). Materials noted with a "—"in column 3 of Table 1 are not solid wastes when reclaimed.

(4) *Accumulated speculatively.* Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

TABLE 1

	Use constituting disposal (§261.2(c)(1))	Energy recovery/ fuel (§261.2(c)(2))	Reclamation (§261.2(c)(3)) (except as provided in 261.4(a)(17) for mineral processing secondary materials)	Speculative accumulation (§261.2(c)(4))
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—
Scrap metal other than excluded scrap metal (see 261.1(c)(9))	(*)	(*)	(*)	(*)

NOTE: The terms "spent materials," "sludges," "by-products," and "scrap metal" and "processed scrap metal" are defined in §261.1.

(d) *Inherently waste-like materials.* The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026, and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in subparts C or D of this part, except for brominated material that meets the following criteria:

(i) The material must contain a bromine concentration of at least 45%; and

(ii) The material must contain less than a total of 1% of toxic organic compounds listed in appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance (hard piping).

(3) The Administrator will use the following criteria to add wastes to that list:

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of part 261 and these constituents 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 are not used or reused during the recycling process; and

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

(e) *Materials that are not solid waste when recycled.* (1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material must be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials must be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at § 261.4(a)(17) apply rather than this paragraph.

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process (described in paragraphs (e)(1)(i) through (iii) of this section):

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

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

(iii) Materials accumulated speculatively; or

(iv) Materials listed in paragraphs (d)(1) and (d)(2) of this section.

(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must 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 must show that they have the necessary equipment to do so.

[50 FR 664, Jan. 4, 1985, as amended at 50 FR 33542, Aug. 20, 1985; 56 FR 7206, Feb. 21, 1991; 56 FR 32688, July 17, 1991; 56 FR 42512, Aug. 27, 1991; 57 FR 38564, Aug. 25, 1992; 59 FR 48042, Sept. 19, 1994; 62 FR 6651, Feb. 12, 1997; 62 FR 26019, May 12, 1997; 63 FR 28636, May 26, 1998; 64 FR 24513, May 11, 1999; 67 FR 11253, Mar. 13, 2002; 71 FR 40258, July 14, 2006]

§ 261.3 Definition of hazardous waste.

(a) A solid waste, as defined in § 261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under § 261.4(b); and

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324.12101 Definitions; B to L.

(n) "Liquid industrial waste" means any brine, by-product, industrial wastewater, leachate, off-specification commercial chemical product, sludge, sanitary sewer clean-out residue, storm sewer clean-out residue, grease trap clean-out residue, spill residue, used oil, or other liquid waste that is produced by, is incident to, or results from industrial, commercial, or governmental activity or any other activity or enterprise determined to be liquid by method 9095 (paint filter liquids test) as described in "Test methods for evaluating solid wastes, physical/chemical methods," United States environmental protection agency publication no. SW-846, and which is discarded. Liquid industrial waste does not include any of the following:

(i) Hazardous waste regulated and required to be manifested under part 111.
(ii) Septage waste regulated under part 117.
(iii) Medical waste regulated under part 138 of the public health code, 1978 PA 368, MCL 333.13801 to 333.13831.
(iv) A discharge to the waters of the state in accordance with a permit, order, or rule under part 31.
(v) A liquid generated by a household.
(vi) A liquid regulated under 1982 PA 239, MCL 287.651 to 287.683.
(vii) Material managed in accordance with section 12102a.

324.12102a Materials not specified as liquid industrial wastes.

The following materials are not liquid industrial wastes when managed as specified:

(a) A material that is used or reused as an effective substitute for commercial products or returned to the original process, if the material does not require reclamation prior to use or reuse, is not directly burned to recover energy or used to produce a fuel, and is not applied to the land or used in products applied to the land.
(b) A used oil that is directly burned to recover energy or used to produce a fuel if all of the following requirements are met:
  (i) The material meets the used oil specifications of R 299.9809(1)(f) of the Michigan administrative code.
  (ii) The material contains no greater than 2 ppm polychlorinated biphenyls.
  (iii) The material has a minimum energy content of 17,000 BTU/lb.
  (iv) The material is expressly authorized as a used oil fuel source, regulated under part 55, or, in another state, regulated under a similar air pollution control authority.
(c) A liquid fully contained inside a manufactured article, until the liquid is removed or the manufactured equipment is discarded, at which point it becomes subject to this part.
(d) A liquid waste sample transported for testing to determine its characteristics or composition. The sample becomes subject to this part when discarded.
(e) A liquid that is not regulated under part 615 that is generated in the drilling, operation, maintenance, or closure of a well, or other drilling operation, including the installation of cathodic protection or directional drilling, if either of the following applies:
  (i) The liquid is left in place at the point of generation in compliance with part 31, 201, oR 213.
  (ii) The liquid is transported off-site from a location that is not a known facility as defined in section 20101, and all of the following occur:
    (A) The disposal complies with applicable provisions of part 31 or 115.
    (B) The disposal is not to a surface water.
    (C) The landowner of the disposal site has authorized the disposal.
(f) A liquid vegetable or animal fat oil that is transported directly to a producer of biofuels for the purpose of converting the oil to biofuel.
(g) An off-specification fuel, including a gasoline blendstock, that was generated in a pipeline as the interface material from the mixture of 2 adjacent fuel products and that will be processed, by blending or by distillation or other refining, to produce a fuel product or fuel products.
(h) An off-specification fuel, including a gasoline blendstock, that resulted from the commingling of off-specification fuel products or from phase separation in a gasoline and alcohol blend and that will be processed, by distillation or other refining, to produce fuel products.
(i) An off-specification fuel product transported directly to a distillation or refining facility to produce a fuel product or fuel products regulated pursuant to 40 CFR part 80.

(j) A liquid or a sludge and associated liquid authorized to be applied to land under part 31 or 115.
(k) A liquid residue remaining in a container after pouring, pumping, aspirating, or another practice commonly employed to remove liquids has been utilized, if not more than 1 inch of residue remains on the bottom, or, for containers less than or equal to 110 gallons in size, not more than 3% by weight of residue remains in the container, or, for containers greater than 110 gallons in size, not more than 0.3% by weight of residue remains in the container. The liquid residue becomes subject to this part when discarded.
(l) A residual amount of liquid remaining in a container and generated as a result of transportation of a solid waste in that container.
(m) A liquid brine authorized for use as dust and ice control regulated under parts 31 and 615.
(n) Food processing residuals as defined in section 11503, or site-separated material or source-separated material approved by the department under part 115, that, to produce biogas, will be decomposed in a controlled manner under anaerobic conditions using a closed system that complies with part 55.
(o) A liquid approved by the director for use as a biofuel in energy production in compliance with part 55 that is not speculatively accumulated and that is transported directly to the burner of the biofuel.

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324.11501 Meanings of words and phrases.
For purposes of this part, the words and phrases defined in sections 11502 to 11506 have the meanings ascribed to them in those sections.

324.11502 Definitions; A to C.
(1) "Agronomic rate" means a rate that meets both of the following requirements:
   (a) Is generally recognized by the agricultural community or is calculated for a particular area of land to improve the physical nature of soil, such as structure, tilth, water retention, pH, or porosity, or to provide macronutrients or micronutrients in an amount not materially in excess of that needed by the crop, forest, or vegetation grown on the land.
   (b) Takes into account and minimizes runoff of beneficial use by-products to surface water or neighboring properties, the percolation of excess nutrients beyond the root zone, and the liberation of metals from the soil into groundwater.
(2) "Ashes" means the residue from the burning of wood, scrap wood, tires, biomass, wastewater sludge, fossil fuels including coal or coke, or other combustible materials.
(3) "Beneficial use 1" means use as aggregate, road material, or building material that in ultimate use is or will be bonded or encapsulated by cement, limes, or asphalt.
(4) "Beneficial use 2" means use as any of the following:
   (a) Construction fill at nonresidential property that meets all of the following requirements:
      (i) Is placed at least 4 feet above the seasonal groundwater table.
      (ii) Does not come into contact with a surface water body.
      (iii) Is covered by concrete, asphalt pavement, or other material approved by the department.
      (iv) Does not exceed 4 feet in thickness, except for areas where exceedances are incidental to variations in the existing topography. This subparagraph does not apply to construction fill placed underneath a building or other structure.
   (b) Road base or soil stabilizer that does not exceed 4 feet in thickness except for areas where exceedances are incidental to variations in existing topography, is placed at least 4 feet above the seasonal groundwater table, does not come into contact with a surface water body, and is covered by concrete, asphalt pavement, or other material approved by the department.
   (c) Road shoulder material that does not exceed 4 feet in thickness except for areas where exceedances are incidental to variations in existing topography, is placed at least 4 feet above the seasonal groundwater table, does not come into contact with a surface water body, is sloped, and is covered by asphalt pavement, concrete, 6 inches of gravel, or other material approved by the department.
(5) "Beneficial use 3" means applied to land as a fertilizer or soil conditioner under part 85 or a liming material under 1955 PA 162, MCL 290.531 to 290.538, if all of the following requirements are met:
   (a) The material is applied at an agronomic rate consistent with generally accepted agricultural and management practices.
   (b) The use, placement, or storage at the location of use does not do any of the following:
      (i) Violate part 55 or create a nuisance.

(ii) Cause groundwater to no longer be fit for 1 or more protected uses as defined in R 323.2202 of the Michigan administrative code.
(iii) Cause a violation of a part 31 surface water quality standard.

(6) "Beneficial use 4" means any of the following uses:
(a) To stabilize, neutralize, solidify, or otherwise treat waste for ultimate disposal at a facility licensed under this part or part 111.
(b) To treat wastewater, wastewater treatment sludge, or wastewater sludge in compliance with part 31 or the federal water pollution control act, 33 USC 1251 to 1387 at a private or publicly owned wastewater treatment plant.
(c) To stabilize, neutralize, solidify, cap, or otherwise remediate hazardous substances or contaminants as part of a response activity in compliance with part 201, part 213, or the comprehensive environmental response, compensation and liability act of 1980, 42 USC 9601 to 9657, or a corrective action in compliance with part 111 or the solid waste disposal act, 42 USC 6901 to 6992k.
(d) As construction material at a landfill licensed under this part.

(7) "Beneficial use 5" means blended with inert materials or with compost and used to manufacture soil.

(8) "Beneficial use by-product" means the following materials if the materials are stored for beneficial use or are used beneficially as specified and the requirements of section 11551(1) are met:
(a) Coal bottom ash or wood ash used for beneficial use 3 or wood ash or coal ash, except for segregated flue gas desulfurization material, used for beneficial use 1, 2, or 4.
(b) Pulp and paper mill ash used for beneficial use 1, 2, 3, or 4.
(c) Mixed wood ash used for beneficial use 1, 2, 3, or 4.
(d) Cement kiln dust used as a flue gas scrubbing reagent or for beneficial use 1, 2, 3, or 4.
(e) Lime kiln dust used as a flue gas scrubbing reagent or for beneficial use 1, 2, 3, or 4.
(f) Stamp sands used for beneficial use 1 or 2.
(g) Foundry sand from ferrous or aluminum foundries used for beneficial use 1, 2, 3, 4, or 5.
(h) Pulp and paper mill material, other than the following, used for beneficial use 3:
(i) Rejects, from screens, cleaners, and mills dispersion equipment, containing more than de minimis amounts of plastic.
(ii) Scrap paper.
(i) Spent media from sandblasting, with uncontaminated sand, newly manufactured, unpainted steel used for beneficial use 1 oR 2.
(j) Dewatered concrete grinding slurry from public transportation agency road projects used for beneficial use 1, 2, 3, or 4.
(k) Lime softening residuals from the treatment and conditioning of water for domestic use or from a community water supply used for beneficial use 3 or 4.
(l) Soil washed or otherwise removed from sugar beets that is used for beneficial use 3.
(m) Segregated flue gas desulfurization material used for beneficial use 1 or 3.
(n) Materials and uses approved by the department under section 11553(3) or (4). Approval of materials and uses by the department under section 11553(3) or (4) does not require the use of those materials by any governmental entity or any other person.

(9) "Beverage container" means an airtight metal, glass, paper, or plastic container, or a container composed of a combination of these materials, which, at the time of sale, contains 1 gallon or less of any of the following:
(a) A soft drink, soda water, carbonated natural or mineral water, or other nonalcoholic carbonated drink.
(b) A beer, ale, or other malt drink of whatever alcoholic content.
(c) A mixed wine drink or a mixed spirit drink.

(10) "Bond" means a financial instrument executed on a form approved by the department, including a surety bond from a surety company authorized to transact business in this state, a certificate of deposit, a cash bond, an irrevocable letter of credit, insurance, a trust fund, an escrow account, or a combination of any of these instruments in favor of the department. The owner or operator of a disposal area who is required to establish a bond under another state statute or a federal statute may petition the department to allow such a bond to meet the requirements of this part. The department shall approve a bond established under another state statute or a federal statute if the bond provides equivalent funds and access by the department as other financial instruments allowed by this subsection.

(11) "Cement kiln dust" means particulate matter collected in air emission control devices serving Portland cement kilns.

(12) "Certificate of deposit" means a negotiable certificate of deposit held by a bank or other financial institution regulated and examined by a state or federal agency, the value of which is fully insured by an agency of the

United States government. A certificate of deposit used to fulfill the requirements of this part shall be in the sole name of the department with a maturity date of not less than 1 year and shall be renewed not less than 60 days before the maturity date. An applicant who uses a certificate of deposit as a bond shall receive any accrued interest on that certificate of deposit upon release of the bond by the department.

(13) "Certified health department" means a city, county, or district department of health that is specifically delegated authority by the department to perform designated activities as prescribed by this part.

(14) "Coal ash" means the material recovered from systems for the control of air pollution from, or the noncombusted residue remaining after, the combustion of coal, including, but not limited to, bottom ash, fly ash, boiler slag, or fluidized-bed combustion ash. For beneficial use 2, coal ash does not include coal fly ash except for the following if used at nonresidential property:
   (a) Class C fly ash under ASTM standard C618-12A.
   (b) Class F fly ash under ASTM standard C618-12A if that fly ash forms a pozzolanic-stabilized mixture by being blended with lime, Portland cement, or cement kiln dust.
   (c) A combination of class C fly ash and class F fly ash under ASTM standard C618-12A if that combination forms a pozzolanic-stabilized mixture by being blended with lime, Portland cement, or cement kiln dust and is used as a road base, soil stabilizer, or road shoulder material under subsection (4)(b) or (c).

(15) "Coal bottom ash" means ash particles from the combustion of coal that are too large to be carried in flue gases and that collect on furnace walls or at the bottom of the furnace.

(16) "Collection center" means a tract of land, building, unit, or appurtenance or combination thereof that is used to collect junk motor vehicles and farm implements under section 11530.

(17) "Composting facility" means a facility where composting of yard clippings or other organic materials occurs using mechanical handling techniques such as physical turning, windrowing, or aeration or using other management techniques approved by the director.

(18) "Consistency review" means evaluation of the administrative and technical components of an application for a permit or license or evaluation of operating conditions in the course of inspection, for the purpose of determining consistency with the requirements of this part, rules promulgated under this part, and approved plans and specifications.

(19) "Corrective action" means the investigation, assessment, cleanup, removal, containment, isolation, treatment, or monitoring of constituents, as defined in a facility's approved hydrogeological monitoring plan, released into the environment from a disposal area, or the taking of other actions related to the release as may be necessary to prevent, minimize, or mitigate injury to the public health, safety, or welfare, the environment, or natural resources that is consistent with 42 USC 6941 to 6949a and regulations promulgated thereunder.

324.11503 Definitions; D to G.

(1) "De minimis" refers to a small amount of material or number of items, as applicable, incidentally commingled with inert material for beneficial use by-products, or incidentally disposed of with other solid waste.

(2) "Department", subject to section 11554, means the department of environmental quality.

(3) "Director" means the director of the department.

(4) "Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of a substance into the environment that is or may become injurious to the public health, safety, or welfare, or to the environment.

(5) "Disposal area" means 1 or more of the following at a location as defined by the boundary identified in its construction permit or engineering plans approved by the department:
   (a) A solid waste transfer facility.
   (b) An incinerator.
   (c) A sanitary landfill.
   (d) A processing plant.
   (e) Any other solid waste handling or disposal facility utilized in the disposal of solid waste. However, a waste diversion center is not a disposal area.

(6) "Diverted waste" means waste that meets all of the following requirements:
   (a) Is generated by households, businesses, or governmental entities.
   (b) Can lawfully be disposed of at a licensed sanitary landfill or municipal solid waste incinerator.
   (c) Is separated from other waste.
   (d) Is 1 or more of the following:
      (i) Hazardous material.
      (ii) Liquid waste.
      (iii) Pharmaceuticals.

(iv) Electronics.
(v) Batteries.
(vi) Light bulbs.
(vii) Pesticides.
(viii) Thermostats, switches, thermometers, or other devices that contain elemental mercury.
(ix) Sharps.
(x) Other wastes approved by the department that can be readily separated from solid waste for diversion to preferred methods of management and disposal.

(7) "Enforceable mechanism" means a legal method whereby this state, a county, a municipality, or another person is authorized to take action to guarantee compliance with an approved county solid waste management plan. Enforceable mechanisms include contracts, intergovernmental agreements, laws, ordinances, rules, and regulations.
(8) "Escrow account" means an account that is managed by a bank or other financial institution whose account operations are regulated and examined by a federal or state agency and that complies with section 11523b.
(9) "Farm" means that term as defined in section 2 of the Michigan right to farm act, 1981 PA 93, MCL 286.472.
(10) "Farm operation" means that term as defined in section 2 of the Michigan right to farm act, 1981 PA 93, MCL 286.472.
(11) "Financial assurance" means the mechanisms used to demonstrate that the funds necessary to meet the cost of closure, postclosure maintenance and monitoring, and corrective action will be available whenever they are needed.
(12) "Financial test" means a corporate or local government financial test or guarantee approved for type II landfills under 42 USC 6941 to 6949a and regulations promulgated thereunder. An owner or operator may use a single financial test for more than 1 facility. Information submitted to the department to document compliance with the test shall include a list showing the name and address of each facility and the amount of funds assured by the test for each facility. For purposes of the financial test, the owner or operator shall aggregate the sum of the closure, postclosure, and corrective action costs it seeks to assure with any other environmental obligations assured by a financial test under state or federal law.
(13) "Flue gas desulfurization material" means the material recovered from air pollution control systems that capture sulfur dioxide from the combustion of wood, coal, or fossil fuels, or other combustible materials, if the other combustible materials constitute less than 50% by weight of the total material combusted and the department determines in writing that the other combustible materials do not materially affect the character of the residue. Flue gas desulfurization material includes synthetic gypsum.
(14) "Food processing residuals" means any of the following:
(a) Residuals of fruits, vegetables, aquatic plants, or field crops.
(b) Otherwise unusable parts of fruits, vegetables, aquatic plants, or field crops from the processing thereof.
(c) Otherwise unusable food products that do not meet size, quality, or other product specifications and that were intended for human or animal consumption.
(15) "Foundry sand" means silica sand used in the metal casting process, including binding material or carbonaceous additives, from ferrous or nonferrous foundries.
(16) "GAAMPS" means the generally accepted agricultural and management practices under the Michigan right to farm act, 1981 PA 93, MCL 286.471 to 286.474.
(17) "Garbage" means rejected food wastes including waste accumulation of animal, fruit, or vegetable matter used or intended for food or that results from the preparation, use, cooking, dealing in, or storing of meat, fish, fowl, fruit, or vegetable matter.

324.11504 Definitions; H to P.

(1) "Health officer" means a full-time administrative officer of a certified health department.
(2) "Inert material" means any of the following:
(a) Rock.
(b) Trees, stumps, and other similar land-clearing debris, if all of the following conditions are met:
(i) The debris is buried on the site of origin or another site, with the approval of the owner of the site.
(ii) The debris is not buried in a wetland or floodplain.
(iii) The debris is placed at least 3 feet above the groundwater table as observed at the time of placement.
(iv) The placement of the debris does not violate federal, state, or local law or create a nuisance.

(c) Uncontaminated excavated soil or dredged sediment. Excavated soil or dredged sediment is considered uncontaminated if it does not contain more than de minimis amounts of solid waste and 1 of the following applies:
  (i) The soil or sediment is not contaminated by a hazardous substance as a result of human activity. Soil or sediment that naturally contains elevated levels of hazardous substances above unrestricted residential or any other part 201 generic soil cleanup criteria is not considered contaminated for purposes of this subdivision. A soil or sediment analysis is not required under this subparagraph if, based on past land use, there is no reason to believe that the soil or sediment is contaminated.
  (ii) For any hazardous substance that could reasonably be expected to be present as a result of past land use and human activity, the soil or sediment does not exceed the background concentration, as that term is defined in part 201.
  (iii) For any hazardous substance that could reasonably be expected to be present as a result of past land use and human activity, the soil or sediment falls below part 201 generic residential soil direct contact cleanup criteria and hazardous substances in leachate from the soil or sediment, using, at the option of the generator, EPA method 1311, 1312, or any other leaching protocol approved by the department, fall below part 201 generic residential health based groundwater drinking water values or criteria, and the soil or sediment would not cause a violation of any surface water quality standard established under part 31 at the area of placement, disposal, or use.

(d) Excavated soil from a site of environmental contamination, corrective action, or response activity if the soil is not a listed hazardous waste under part 111 and if hazardous substances in the soil do not exceed generic soil cleanup criteria for unrestricted residential use as defined in part 201 or background concentration as defined in part 201, as applicable.

(e) Construction brick, masonry, pavement, or broken concrete that is reused for fill, rip rap, slope stabilization, or other construction, if all of the following conditions are met:
  (i) The use of the material does not violate section 3108, part 301, or part 303.
  (ii) The material is not materially contaminated. Typical surface oil staining on pavement and concrete from driveways, roadways, and parking lots is not material contamination. Material covered in whole or in part with lead-based paint is materially contaminated.
  (iii) The material does not include exposed reinforcing bars.

(f) Portland cement clinker produced by a cement kiln using wood, fossil fuels, or solid waste as a fuel or feedstock, but not including cement kiln dust generated in the process.

(g) Asphalt pavement or concrete pavement that meets all of the following requirements:
  (i) Has been removed from a public right-of-way.
  (ii) Has been stockpiled or crushed for reuse as aggregate material.
  (iii) Does not include exposed reinforcement bars.

(h) Cuttings, drilling materials, and fluids used to drill or complete a well installed pursuant to part 127 of the public health code, 1978 PA 368, MCL 333.12701 to 333.12771, if the location of the well is not a facility under part 201.

(i) Any material determined by the department under section 11553(5) or (6) to be an inert material, either for general use or for a particular use.

(3) "Insurance" means insurance that conforms to the requirements of 40 CFR 258.74(d) provided by an insurer who has a certificate of authority from the director of insurance and financial services to sell this line of coverage. An applicant for an operating license shall submit evidence of the required coverage by submitting both of the following to the department:
  (a) A certificate of insurance that uses wording approved by the department.
  (b) A certified true and complete copy of the insurance policy.

(4) "Landfill" means a disposal area that is a sanitary landfill.

(5) "Letter of credit" means an irrevocable letter of credit that complies with 40 CFR 258.74(c).

(6) "Lime kiln dust" means particulate matter collected in air emission control devices serving lime kilns.

(7) "Low-hazard industrial waste" means industrial material that has a low potential for groundwater contamination when managed in accordance with this part. The following materials are low-hazard industrial wastes:
  (a) Coal ash or wood ash.
  (b) Cement kiln dust.
  (c) Pulp and paper mill material.
  (d) Scrap wood.
  (e) Sludge from the treatment and conditioning of water for domestic use.

(f) Residue from the thermal treatment of petroleum contaminated soil, media, or debris.
(g) Sludge from the treatment and conditioning of water from a community water supply.
(h) Foundry sand.
(i) Mixed wood ash, scrap wood ash, pulp and paper mill ash.
(j) Street cleanings.
(k) Asphalt shingles.
(l) New construction or production scrap drywall.
(m) Chipped or shredded tires.
(n) Copper slag.
(o) Copper stamp sands.
(p) Dredge material from nonremedial activities.
(q) Flue gas desulfurization material.
(r) Dewatered grinding slurry generated from public transportation agency road projects.
(s) Any material determined by the department under section 11553(7) to be a low-hazard industrial waste.

(8) "Medical waste" means that term as it is defined in section 13805 of the public health code, 1978 PA 368, MCL 333.13805.

(9) "Mixed wood ash" means the material recovered from air pollution control systems for, or the noncombusted residue remaining after, the combustion of any combination of wood, scrap wood, railroad ties, or tires, if railroad ties composed less than 35% by weight of the total combusted material and tires composed less than 10% by weight of the total combusted material.

(10) "Municipal solid waste incinerator" means an incinerator that is owned or operated by any person, and meets all of the following requirements:
(a) The incinerator receives solid waste from off site and burns only household waste from single and multiple dwellings, hotels, motels, and other residential sources, or this household waste together with solid waste from commercial, institutional, municipal, county, or industrial sources that, if disposed of, would not be required to be placed in a disposal facility licensed under part 111.
(b) The incinerator has established contractual requirements or other notification or inspection procedures sufficient to ensure that the incinerator receives and burns only waste referred to in subdivision (a).
(c) The incinerator meets the requirements of this part and the rules promulgated under this part.
(d) The incinerator is not an industrial furnace as defined in 40 CFR 260.10.
(e) The incinerator is not an incinerator that receives and burns only medical waste or only waste produced at 1 or more hospitals.

(11) "Municipal solid waste incinerator ash" means the substances remaining after combustion in a municipal solid waste incinerator.

(12) "Nonresidential property" means property not used or intended to be used for any of the following:
(a) A child day care center.
(b) An elementary school.
(c) An elder care and assisted living center.
(d) A nursing home.
(e) A single-family or multifamily dwelling unless the dwelling is part of a mixed use development and all dwelling units and associated outdoor residential use areas are located above the ground floor.

(13) "Perpetual care fund" means a trust or escrow account or perpetual care fund bond provided for in section 11525.

(14) "Perpetual care fund bond" means a surety bond, an irrevocable letter of credit, or a combination of these instruments in favor of and on a form approved by the department by which a perpetual care fund is established.

(15) "Pulp and paper mill ash" means the material recovered from air pollution control systems for, or the noncombusted residue remaining after, the combustion of any combination of coal, wood, pulp and paper mill material, wood or biomass fuel pellets, scrap wood, railroad ties, or tires, from a boiler, power plant, or furnace at a pulp and paper mill, if railroad ties composed less than 35% by weight of the total combusted material and tires composed less than 10% by weight of the total combusted material.

(16) "Pulp and paper mill material" means all of the following materials if generated at a facility that produces pulp or paper:
(a) Wastewater treatment sludge, including wood fibers, minerals, and microbial biomass.
(b) Rejects from screens, cleaners, and mills.
(c) Bark, wood fiber, and chips.
(d) Scrap paper.

(e) Causticizing residues, including lime mud and grit and green liquor dregs.
(f) Any material that the department determines has characteristics that are similar to any of the materials listed in subdivisions (a) to (e).

324.11505 Definitions; R, S.

(1) "Recyclable materials" means source separated materials, site separated materials, high grade paper, glass, metal, plastic, aluminum, newspaper, corrugated paper, yard clippings, and other materials that may be recycled or composted.
(2) "Regional solid waste management planning agency" means the regional solid waste planning agency designated by the governor pursuant to 42 USC 6946.
(3) "Resource recovery facility" means machinery, equipment, structures, or any parts or accessories of machinery, equipment, or structures, installed or acquired for the primary purpose of recovering materials or energy from the waste stream.
(4) "Response activity" means an activity that is necessary to protect the public health, safety, welfare, or the environment, and includes, but is not limited to, evaluation, cleanup, removal, containment, isolation, treatment, monitoring, maintenance, replacement of water supplies, and temporary relocation of people.
(5) "Rubbish" means nonputrescible solid waste, excluding ashes, consisting of both combustible and noncombustible waste, including paper, cardboard, metal containers, yard clippings, wood, glass, bedding, crockery, demolished building materials, or litter of any kind that may be a detriment to the public health and safety.
(6) "Salvaging" means the lawful and controlled removal of reusable materials from solid waste.
(7) "Sharps" means that term as defined in section 13807 of the public health code, 1978 PA 368, MCL 333.13807.
(8) "Scrap wood" means wood or wood product that is 1 or more of the following:
(a) Plywood, particle board, pressed board, oriented strand board, fiberboard, resonated wood, or any other wood or wood product mixed with glue, resins, or filler.
(b) Wood or wood product treated with creosote or pentachlorophenol.
(c) Any wood or wood product designated as scrap wood in rules promulgated by the department.
(9) "Site separated material" means glass, metal, wood, paper products, plastics, rubber, textiles, garbage, or any other material approved by the department that is separated from solid waste for the purpose of recycling or conversion into raw materials or new products.
(10) "Slag" means the nonmetallic product resulting from melting or smelting operations for iron or steel.

324.11506 Definitions; S to Y.

(1) "Solid waste" means garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial waste, solid industrial waste, and animal waste. However, solid waste does not include the following:
(a) Human body waste.
(b) Medical waste.
(c) Organic waste generated in the production of livestock and poultry.
(d) Liquid waste.
(e) Ferrous or nonferrous scrap directed to a scrap metal processor or to a reuser of ferrous or nonferrous products.
(f) Slag or slag products directed to a slag processor or to a reuser of slag or slag products.
(g) Sludges and ashes managed as recycled or nondetrimental materials appropriate for agricultural or silvicultural use pursuant to a plan approved by the department.
(h) The following materials that are used as animal feed, or are applied on, or are composted and applied on, farmland or forestland for an agricultural or silvicultural purpose at an agronomic rate consistent with GAAMPS:
(i) Food processing residuals and garbage.
(ii) Precipitated calcium carbonate from sugar beet processing.
(iii) Wood ashes resulting solely from a source that burns only wood that is untreated and inert.
(iv) Lime from kraft pulping processes generated prior to bleaching.
(v) Aquatic plants.
(i) Materials approved for emergency disposal by the department.
(j) Source separated materials.
(k) Site separated material.

(l) Coal ash, when used under any of the following circumstances:
  (i) As a component of concrete, grout, mortar, or casting molds, if the coal ash does not have more than 6% unburned carbon.
  (ii) As a raw material in asphalt for road construction, if the coal ash does not have more than 12% unburned carbon and passes Michigan test method for water asphalt preferential test, MTM 101, as set forth in the state transportation department's manual for the Michigan test methods (MTM).
  (iii) As aggregate, road material, or building material that in ultimate use is or will be stabilized or bonded by cement, limes, or asphalt, or itself act as a bonding agent. To be considered to act as a bonding agent, the coal ash must have at least 10% available lime.
  (iv) As a road base or construction fill that is placed at least 4 feet above the seasonal groundwater table and covered with asphalt, concrete, or other material approved by the department.

(m) Inert material.

(n) Soil that is washed or otherwise removed from sugar beets, has not more than 35% moisture content, and is registered as a soil conditioner under part 85. Any testing required to become registered under part 85 is the responsibility of the generator.

(o) Soil that is relocated under section 20120c.

(p) Diverted waste that is managed through a waste diversion center.

(q) Beneficial use by-products.

(r) Coal bottom ash, if substantially free of fly ash or economizer ash, when used as cold weather road abrasive.

(s) Stamp sands when used as cold weather road abrasive in the Upper Peninsula by any of the following:
  (i) A public road agency.
  (ii) Any other person pursuant to a plan approved by a public road agency.

(t) Any material that is reclaimed or reused in the process that generated it.

(u) Any secondary material that, as specified in or determined pursuant to 40 CFR part 241, is not a solid waste when combusted.

(v) Other wastes regulated by statute.

(2) "Solid waste hauler" means a person who owns or operates a solid waste transporting unit.

(3) "Solid waste processing plant" means a tract of land, building, unit, or appurtenance of a building or unit or a combination of land, buildings, and units that is used or intended for use for the processing of solid waste or the separation of material for salvage or disposal, or both, but does not include a plant engaged primarily in the acquisition, processing, and shipment of ferrous or nonferrous metal scrap, or a plant engaged primarily in the acquisition, processing, and shipment of slag or slag products.

(4) "Solid waste transporting unit" means a container, which may be an integral part of a truck or other piece of equipment used for the transportation of solid waste.

(5) "Solid waste transfer facility" means a tract of land, a building and any appurtenances, or a container, or any combination of land, buildings, or containers that is used or intended for use in the rehandling or storage of solid waste incidental to the transportation of the solid waste, but is not located at the site of generation or the site of disposal of the solid waste.

(6) "Source separated material" means any of the following materials if separated at the source of generation and not speculatively accumulated:
  (a) Glass, metal, wood, paper products, plastics, rubber, textiles, garbage, or any other material approved by the department that is used for conversion into raw materials or new products. For the purposes of this subdivision, raw materials or new products include, but are not limited to, compost, biogas from anaerobic digestion, synthetic gas from gasification or pyrolysis, or other fuel. This subdivision does not prevent material from being classified as a renewable energy resource as defined in section 11 of the clean, renewable, and efficient energy act, 2008 PA 295, MCL 460.1011.
  (b) Scrap wood and railroad ties used to fuel an industrial boiler, kiln, power plant, or furnace, subject to part 55, for production of new wood products, or for other uses approved by the department.
  (c) Chipped or whole tires used to fuel an industrial boiler, kiln, power plant, or furnace, subject to part 55, or for other uses approved by the department. This subdivision does not prevent material from being classified as a renewable energy resource as defined in section 11 of the clean, renewable, and efficient energy act, 2008 PA 295, MCL 460.1011.
  (d) Recovered paint solids used to fuel an industrial boiler, kiln, power plant, or furnace, subject to part 55, or for other uses approved by the department.
  (e) Gypsum drywall generated from the production of wallboard used for stock returned to the production process or for other uses approved by the department.

(f) Flue gas desulfurization gypsum used for production of cement or wallboard or other uses approved by the department.
(g) Asphalt shingles that do not contain asbestos, rolled roofing, or tar paper used as a component in asphalt or used to fuel an industrial boiler, kiln, power plant, or furnace, subject to part 55, or for other uses approved by the department.
(h) Municipal solid waste incinerator ash that meets criteria specified by the department and that is used as daily cover at a disposal facility licensed pursuant to this part.
(i) Utility poles or pole segments reused as poles, posts, or similar uses approved by the department in writing.
(j) Railroad ties reused in landscaping, embankments, or similar uses approved by the department in writing.
(k) Any materials and uses approved by the department under section 11553(8).
(l) Any material determined by the department in writing prior to the effective date of the 2014 amendatory act that added this subdivision to be a source separated material.

(7) "Stamp sands" means finely grained crushed rock resulting from mining, milling, or smelting of copper ore and includes native substances contained within the crushed rock and any ancillary material associated with the crushed rock.
(8) "Treated wood" means wood or wood product that has been treated with 1 or more of the following:
(a) Chromated copper arsenate (CCA).
(b) Ammoniacal copper quat (ACQ).
(c) Ammoniacal copper zinc arsenate (ACZA).
(d) Any other chemical designated in rules promulgated by the department.
(9) "Trust fund" means a fund held by a trustee who has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.
(10) "Type I public water supply", "type IIa public water supply", "type IIb public water supply", and "type III public water supply" mean those terms, respectively, as described in R 325.10502 of the Michigan administrative code.
(11) "Waste diversion center" means property or a building, or a portion of property or a building, designated for the purpose of receiving or collecting diverted wastes and not used for residential purposes.
(12) "Wood" means trees, branches and associated leaves, bark, lumber, pallets, wood chips, sawdust, or other wood or wood product but does not include scrap wood, treated wood, painted wood or painted wood product, or any wood or wood product that has been contaminated during manufacture or use.
(13) "Wood ash" means any type of ash or slag resulting from the burning of wood.
(14) "Yard clippings" means leaves, grass clippings, vegetable or other garden debris, shrubbery, or brush or tree trimmings, less than 4 feet in length and 2 inches in diameter, that can be converted to compost humus. Yard clippings do not include stumps, agricultural wastes, animal waste, roots, sewage sludge, or garbage.

324.11507 Development of methods for disposal of solid waste; construction and administration of part; exemption of inert material from regulation.

(1) The department and a health officer shall assist in developing and encouraging methods for the disposal of solid waste that are environmentally sound, that maximize the utilization of valuable resources, and that encourage resource conservation including source reduction and source separation.
(2) This part shall be construed and administered to encourage and facilitate the effort of all persons to engage in source separation and site separation of material from solid waste, and other environmentally sound measures to prevent materials from entering the waste stream or which encourage the removal of materials from the waste stream.
(3) The department may exempt from regulation under this part solid waste that is determined by the department to be inert material for uses and in a manner approved by the department.

324.11514 Promotion of recycling and reuse of materials; electronics recycling; materials prohibited from disposal in landfill; disposal of yard clippings; report.

(1) Optimizing recycling opportunities, including electronics recycling opportunities, and the reuse of materials shall be a principal objective of the state's solid waste management plan. Recycling and reuse of materials, including the reuse of materials from electronic devices, are in the best interest of promoting the public health and welfare. The state shall develop policies and practices that promote recycling and reuse of materials and, to the extent practical, minimize the use of landfilling as a method for disposal of its waste. Policies and practices that promote recycling and reuse of materials, including materials from electronic devices, will

conserve raw materials, conserve landfill space, and avoid the contamination of soil and groundwater from heavy metals and other pollutants.

(2) A person shall not knowingly deliver to a landfill for disposal, or, if the person is an owner or operator of a landfill, knowingly permit disposal in the landfill of, any of the following:
   (a) Medical waste, unless that medical waste has been decontaminated or is not required to be decontaminated but is packaged in the manner required under part 138 of the public health code, 1978 PA 368, MCL 333.13801 to 333.13831.
   (b) More than a de minimis amount of open, empty, or otherwise used beverage containers.
   (c) More than a de minimis number of whole motor vehicle tires.
   (d) More than a de minimis amount of yard clippings, unless they are diseased, infested, or composed of invasive species as authorized by section 11521(1)(i).

(3) A person shall not deliver to a landfill for disposal, or, if the person is an owner or operator of a landfill, permit disposal in the landfill of, any of the following:
   (a) Used oil as defined in section 16701.
   (b) A lead acid battery as defined in section 17101.
   (c) Low-level radioactive waste as defined in section 2 of the low-level radioactive waste authority act, 1987 PA 204, MCL 333.26202.
   (d) Regulated hazardous waste as defined in R 299.4104 of the Michigan administrative code.
   (e) Bulk or noncontainerized liquid waste or waste that contains free liquids, unless the waste is 1 of the following:
      (i) Household waste other than septage waste.
      (ii) Leachate or gas condensate that is approved for recirculation.
      (iii) Septage waste or other liquids approved for beneficial addition under section 11511b.
   (f) Sewage.
   (g) PCBs as defined in 40 CFR 761.3.
   (h) Asbestos waste, unless the landfill complies with 40 CFR 61.154.

(4) A person shall not knowingly deliver to a municipal solid waste incinerator for disposal, or, if the person is an owner or operator of a municipal solid waste incinerator, knowingly permit disposal in the incinerator of, more than a de minimis amount of yard clippings, unless they are diseased, infested, or composed of invasive species as authorized by section 11521(1)(i). The department shall post, and a solid waste hauler that disposes of solid waste in a municipal solid waste incinerator shall provide its customers with, notice of the prohibitions of this subsection in the same manner as provided in section 11527a.

(5) If the department determines that a safe, sanitary, and feasible alternative does not exist for the disposal in a landfill or municipal solid waste incinerator of any items described in subsection (2) or (4), respectively, the department shall submit a report setting forth that determination and the basis for the determination to the standing committees of the senate and house of representatives with primary responsibility for solid waste issues.

324.11521b Operator of waste diversion center; duties; requirements; disposal; rejection of diverted waste.

(1) The operator of a waste diversion center shall comply with all of the following requirements:
   (a) At least 90%, by volume, of the material collected at the waste diversion center shall consist of diverted waste to be managed at the waste diversion center.
   (b) The waste diversion center shall be operated by personnel who are knowledgeable about the safe management of the types of diverted waste that are accepted at the waste diversion center.
   (c) The operator shall manage the diverted waste in a manner that prevents the release of any diverted waste or component of diverted waste to the environment.
   (d) The operator shall not store diverted waste overnight at the waste diversion center except in a secure location and with adequate containment to prevent any release of diverted wastes.
   (e) Within 1 year after diverted waste is collected by the waste diversion center, that diverted waste shall be transported from the waste diversion center to a waste diversion center, recycling facility, or disposal facility that is in compliance with this act, for processing, recycling, or disposal.
   (f) The operator shall not process diverted waste except to the extent necessary for the safe and efficient transportation of the diverted waste.
   (g) The operator shall record the types and quantities of diverted wastes collected, the period of storage, and where the diverted wastes were transferred, processed, recycled, or disposed of. The operator shall

maintain the records for at least 3 years and shall make the records available to the department upon request.

(h) Access to the waste diversion center shall be limited to a time when a responsible individual is on duty.

(i) The area where the diverted waste is accumulated shall be protected, as appropriate for the type of waste, from weather, fire, physical damage, and vandals.

(j) The waste diversion center shall be kept clean and free of litter.

(2) Management of diverted wastes as required by this section is not considered disposal for the purposes of section 11538(6).

(3) The operator of a waste diversion center may reject any diverted waste.

324.11551 Beneficial use by-product; qualification; requirements; analysis of representative sample by initial generator; determination; storage and use; beneficial uses 1 and 2 at and along roadways; registration or licensure under MCL 290.531 to 290.538; submission of information; open dumping; notice to prospective transferee.

(1) Except for a material that the department approves as a beneficial use by-product under section 11553(3) or (4), to qualify as a beneficial use by-product, a material or the use of the material, as applicable, shall meet all of the following requirements:

(a) The material is not a part 111 hazardous waste or mixed with a hazardous waste.

(b) The material is not stored at the site of generation or use for more than 3 years, or the amount that is transferred off site for use during a 3-year period equals at least 75% by weight or volume of the amount of that material stored on site for beneficial use at the beginning of the 3-year period.

(c) The material is stored in a manner that maintains its usefulness, controls wind dispersal, and prevents loss of the material beyond the storage area.

(d) The material is stored in a manner that does not cause groundwater to no longer be fit for 1 or more protected uses, does not cause a violation of a part 31 surface water quality standard, and otherwise does not violate part 31.

(e) The material is transported in a manner that prevents accidental leakage, spillage, or wind dispersal.

(f) The use of the material is for a legitimate beneficial purpose other than a means to discard the material and the material is used according to generally accepted engineering, industrial, or commercial standards for that use.

(g) For beneficial use 2, the material, if specified below, meets the following environmental standards using, at the option of the generator of the by-product, EPA method 1311, 1312, or ASTM test method 3987:

Constituent - maximum leachate mg/l	Coal ash or wood ash	Pulp and paper mill ash, mixed wood ash	Foundry sand	Cement kiln dust, lime kiln dust	Water softening limes, dewatered grinding sludge	Stamp sand	Spent media from sand blasting
Arsenic – 0.2	X	X	X	X	X		
Boron – 10	X						
Cadmium – 0.1	X	X		X	X		
Chromium – 2.0	X						X
Lead – 0.08	X	X	X	X	X		
Mercury – 0.04	X	X		X	X		
Copper – 20		X			X	X	
Nickel – 2.0		X	X		X		X
Selenium – 1.0	X				X		
Thallium – 0.04	X			X			
Zinc – 48	X	X			X		

(h) For beneficial use 3, the material or use of the material, as applicable, meets all of the following requirements:

(i) The material is coal bottom ash, wood ash, pulp and paper mill material, pulp and paper mill ash, mixed wood ash, foundry sand from ferrous or aluminum foundries, cement kiln dust, lime kiln dust,

lime water softening residuals, flue gas desulfurization gypsum, soil washed or otherwise removed from sugar beets, or dewatered concrete grinding slurry from public transportation agency road projects.

(ii) The amount of any constituent listed below applied to an area of land over any period of time does not exceed the following:

CONSTITUENT	CUMULATIVE LOAD POUNDS PER ACRE
Arsenic	37
Cadmium	35
Copper	1,335
Lead	267
Mercury	15
Nickel	374
Selenium	89
Zinc	2,492

(iii) If the department of agriculture and rural development determines, based on peer-reviewed scientific literature, that any other constituent is subject to a cumulative loading requirement, the amount of that constituent applied to an area of land over any period of time does not exceed that cumulative loading requirement. The cumulative load for that constituent shall be calculated as follows: constituent concentration (mg/kg dry weight) x conversion factor of 0.002 (concentration to pounds per dry ton) x the material application rate in dry tons per acre.

(i) For beneficial use 5, the material is foundry sand from ferrous or aluminum foundries and representative sampling of the foundry sand using either a totals analysis, a leachate analysis (using EPA method 1311, EPA method 1312, ASTM method 3987, or other leaching protocol approved by the department), or any combination of the 2 types of analyses demonstrates that none of the following maximum concentrations are exceeded:

CONSTITUENT	TOTALS ANALYSIS MG/KG	LEACHATE ANALYSIS MG/L
Antimony	4.3	0.006
Cobalt	0.8	0.04
Copper	5,800	1
Iron	23,185	2.0
Lead	700	0.004
Manganese	1,299	0.86
Molybdenum	5	0.073
Nickel	100	0.1
Thallium	2.3	0.002
Vanadium	72	0.0045
Zinc	2,400	2.4
Benzene	0.1	0.005
Formaldehyde	26	1.3
Phenol	88	4.4
Trichloroethylene	0.1	0.005

(2) The determination whether a material meets the requirements of subsection (1)(a) or (g) shall be based on the analysis of a representative sample of the material by the initial generator. The initial generator shall maintain records of the test results for not less than 10 years after the date the material was sent off site and make the records available to the department upon request. The generator shall resample and analyze the material when raw materials or processes change in a way that could reasonably be expected to materially affect analysis results.

(3) Except as otherwise provided in this act, storage and use of beneficial use by-products shall comply with all other applicable provisions of this act.

(4) The storage of a material for beneficial use 3 that complies with regulation no. 641, commercial fertilizer bulk storage, R 285.641.1 to R 285.641.18 of the Michigan administrative code, shall be considered to comply with the storage requirements of this part.
(5) A person that actively manages and reuses a beneficial use by-product that has already been used in compliance with this part may rely on analytical data from the prior use.
(6) All of the following apply to beneficial uses 1 and 2 at and along roadways:
  (a) Routine repair and replacement of roadways constructed using beneficial use materials does not constitute generation of beneficial use by-products triggering the requirements of this section if the beneficial use by-products remain or are reused at the same roadway and are used in a manner that meets the definition of beneficial use 1 or beneficial use 2, as appropriate. If the beneficial use by-products will be reused at some place other than the same roadway, then the requirements applicable to generators of beneficial use by-products must be met, except as follows:
    (i) As set forth in subsection (5).
    (ii) The requirements of section 11552 apply only if the category of beneficial use will change.
  (b) For beneficial use 2, the requirement that beneficial use materials be covered by concrete, asphalt, or 6 inches of gravel applies at the time of placement and use. The development of potholes, shoulder erosion, or similar deterioration does not result in a violation of this part.
  (c) If road materials containing beneficial use by-products are ground, reheated, or melted for reuse, the requirements of part 55 must be met.
  (d) This part does not prohibit the state transportation department from seeking additional data or information for road building materials or from requiring that road building materials meet state transportation department specifications and standards.
(7) For beneficial use 3, the material that is offered for sale or use shall be annually registered or licensed under part 85 or 1955 PA 162, MCL 290.531 to 290.538. In addition to the information required under part 85 or 1955 PA 162, MCL 290.531 to 290.538, the following information shall be submitted to the department of agriculture and rural development with the license or registration application:
  (a) Directions for use to ensure that the material is applied at an agronomic rate that has been reviewed by a certified crop advisor.
  (b) A laboratory analysis report that contains all of the following:
    (i) Sampling results that demonstrate that the material does not pose harm to human health or the environment. One method by which this demonstration can be made is by sampling results that comply with both of the following:
      (A) The levels established pursuant to the association of American plant food control officials' statement of uniform interpretation and policy #25, as follows:
        (I) A fertilizer with a phosphorus or micronutrient guarantee shall apply the policy in its entirety.
        (II) A fertilizer with only a nitrogen, potassium, or secondary nutrient guarantee shall use the micronutrients column in the policy and apply a multiplier of 1 to determine the maximum allowable concentration of each metal.
        (III) A soil conditioner or liming material shall use the micronutrients column in the policy and apply a multiplier of 1 to determine the maximum allowable concentration of each metal.
      (B) The part 201 generic residential soil direct contact cleanup criteria for volatile organic compounds (as determined by U.S. EPA method 8260), semivolatile organic compounds (as determined by U.S. EPA method 8270c), and dioxins (as determined by U.S. EPA method 1613b). Results for dioxins shall be reported on a dry weight basis, and total dioxin equivalence shall be calculated and reported utilizing the U.S. EPA toxic equivalency factors (U.S. EPA/100/R10/005).
    (ii) For a fertilizer, all of the following used by a certified crop advisor to determine an agronomic rate consistent with generally accepted agricultural and management practices:
      (A) A demonstration that the material contains the minimum percentage of each plant nutrient guaranteed or claimed to be present.
      (B) The percentage of dry solids, nitrogen, ammonium nitrogen, nitrate nitrogen, phosphorus, and potassium in the material.
      (C) The levels of calcium, magnesium, acidity or basicity measured by pH, sulfur, chromium, copper, silver, chlorine, and boron.
    (iii) For a soil conditioner or a liming material, all of the following used by a certified crop advisor to determine an agronomic rate consistent with generally accepted agricultural and management practices:
      (A) The percentage of dry solids in the material.

(B) The levels of calcium, magnesium, acidity or basicity measured by pH, sulfur, chromium, copper, silver, chlorine, and boron.

(iv) For a soil conditioner, scientifically acceptable data that give reasonable assurance that the material will improve the physical nature of the soil by altering the soil structure by making soil nutrients more available or otherwise enhancing the soil media resulting in beneficial crop response or other plant growth.

(v) For a liming material, scientifically acceptable data demonstrating that the material will correct soil acidity.

(8) When a material is licensed or registered as described in subsection (7), the laboratory analysis report and the scientifically acceptable data submitted with a prior application may be resubmitted for a subsequent application unless the raw materials or processes used to generate the material change in a way that could reasonably be expected to materially affect the laboratory analysis report or scientifically acceptable data.

(9) This part does not authorize open dumping prohibited by the solid waste disposal act, 42 USC 6901 to 6992k.

(10) If an owner of property has knowledge that a material has been used on the property for beneficial use 2, before transferring the property, the owner shall provide notice to a prospective transferee that the material was used for beneficial use 2, including the date and location of the use, if known. If a contractor, consultant, or agent of an owner of property uses a material on the property for beneficial use 2, the contractor, consultant, or agent shall provide notice to the owner that the material was used for beneficial use 2, including the date and location of the use.

324.11551a Beneficial use by-product not required.

This part does not require the use of any beneficial use by-product, including, but not limited to, the uses and beneficial use by-products identified in sections 11502 to 11506, by any governmental entity or any other person.

324.11552 Notice; report; confidentiality.

(1) Written notice shall be submitted to the department before a beneficial use by-product is used for beneficial use 2 as construction fill at a particular site for the first time, if the amount used will exceed 5,000 cubic yards. The generator of the beneficial use by-product shall submit the notice unless the generator transfers material to a broker, in which case the broker shall submit the notice.

(2) By October 30 of each year, any generator or broker of more than 1,000 cubic yards of material used as beneficial use by-products for beneficial use 1, 2, or 4 in the immediately preceding period of October 1 to September 30 or any person that uses or reuses more than 1,000 cubic yards of a source separated material in that period shall submit a report to the department containing all of the following information, as applicable:

(a) The business name, address, telephone number, and name of a contact person for the generator, broker, or other person.

(b) The types and approximate amounts of beneficial use by-products generated, brokered, and stored during that period.

(c) The approximate amount of beneficial use by-products shipped off site during that period and the uses and conditions of use.

(d) The amount of source separated materials used or reused.

(3) A generator or broker may designate the information required in the report under subsection (2)(b) and (c) as confidential business information. If the scope of a request for public records under section 5 of the freedom of information act, 1976 PA 442, MCL 15.235, includes information designated by the generator or broker as confidential, the department shall promptly notify the generator or broker of the request, including the date the request was received by the department and, pursuant to that section, shall issue a notice extending for 10 business days the period during which the department shall respond to the request. The department shall grant the request for the information unless, within 12 business days after the date the request was received by the department, the generator or broker demonstrates to the satisfaction of the department that the information designated as confidential should not be disclosed because the information constitutes a trade secret or secret process or is production or commercial information the disclosure of which would jeopardize the competitive position of the generator or broker. If there is a dispute over the release of information between the generator or broker and the person requesting the information, the director shall grant or deny the request. The department shall notify the generator or broker of a decision to grant the request at least 2 days before the release of the requested information.

324.11553 Promoting and fostering use of wastes and by-products for recycling or beneficial purposes; approval of material, use, or material and use; request; approval or denial by department; determination made prior to effective date of amendatory act.

(1) Consistent with the requirements of this part, the department shall apply this section so as to promote and foster the use of wastes and by-products for recycling or beneficial purposes.

(2) Any person may request the department, consistent with the definitions and other terms of this part, to approve a material, a use, or a material and use as a source separated material; a beneficial use by-product for beneficial use 1, 2, 4, or 5; an inert material; a low-hazard industrial waste; or another material, use, or material and use that can be approved under this part. Among other things, a person may request the department to approve a use that does not qualify as beneficial use 2 under section 11502(4)(a) because the property is not nonresidential property or under section 11502(4)(a), (b), or (c) because the material exceeds 4 feet in thickness. A request under this subsection shall contain a description of the material including the process generating it; results of analyses of representative samples of the material for any hazardous substances that the person has knowledge or reason to believe could be present in the material, based on its source, its composition, or the process that generated it; and, if applicable, a description of the proposed use. The analysis and sampling of the material under this subsection shall be consistent with the methods contained in the EPA document entitled "test methods for the evaluation of solid waste, physical/chemical methods," SW 846 3rd edition; 1 or more peer-reviewed standards developed by a national or international organization, such as ASTM international; or 1 or more standards or methods approved by the department or the EPA. The department shall approve or deny the request within 150 days after the request is received, unless the parties agree to an extension. If the department determines that the request does not include sufficient information, the department shall, not more than 60 days after receipt of the request, notify the requester. The notice shall specify the additional information that is required. The 150-day period is tolled until the requestor submits the information specified in the notice. If the department approves a request under this subsection, the approval shall include the following statement: "This approval does not require any use of any beneficial use by-product by a governmental entity or any other person." The department may impose conditions and other requirements consistent with the purposes of this part on a material, a use, or a material and use approved under this section that are reasonably necessary for the use. If a request is approved with conditions or other requirements, the approval shall specifically state the conditions or other requirements. If the request is denied, the department's denial shall, to the extent practical, state with specificity all of the reasons for denial. If the department fails to approve or deny the request within the 150-day period, the request is considered approved. A person requesting approval under this subsection may seek review of any final department decision pursuant to section 631 of the revised judicature act of 1961, 1961 PA 236, MCL 600.631.

(3) The department shall approve a material for a specified use as a beneficial use by-product if all of the following requirements are met:
   (a) The material is an industrial or commercial material that is or has the potential to be generated in high volumes.
   (b) The proposed use serves a legitimate beneficial purpose other than providing a means to discard the material.
   (c) A market exists for the material or there is a reasonable potential for the creation of a new market for the material if it is approved as a beneficial use by-product.
   (d) The material and use meet all federal and state consumer protection and product safety laws and regulations.
   (e) The material meets all of the following requirements:
      (i) Hazardous substances in the material do not pose a direct contact health hazard to humans.
      (ii) The material does not leach, decompose, or dissolve in a way that forms an unacceptably contaminated leachate. An unacceptably contaminated leachate is one that exceeds either part 201 generic residential groundwater drinking water criteria or surface water quality standards established under part 31.
      (iii) The material does not produce emissions that violate part 55 or that create a nuisance.

(4) The department may approve a material for a specified use as a beneficial use by-product if the material meets the requirements of subsection (3)(a), (b), (c), and (d) but fails to meet the requirements of subsection (3)(e) and if the department determines that the material and use are protective of the public health and environment. In making the determination, the department shall consider the potential for exposure and risk to human health and the environment given the nature of the material, its proposed use, and the environmental fate and transport of any hazardous substances in the material in soil, groundwater, or other relevant media.

(5) The department shall approve a material as inert if all of the following requirements are met:
   (a) The material is proposed to be used for a legitimate purpose other than a means to dispose of the material.
   (b) Hazardous substances in the material do not pose a direct contact health hazard to humans.
   (c) The material does not leach, decompose, or dissolve in a way that forms an unacceptably contaminated leachate upon contact with water or other liquids likely to be found at the area of placement, disposal, or use. An unacceptably contaminated leachate is leachate that exceeds part 201 generic residential groundwater drinking water criteria or surface water quality standards established under part 31.
   (d) The material does not produce emissions that violate part 55 or that create a nuisance.

(6) The department may approve a material as inert if the material meets the requirements of subsection (5)(a) but fails to meet the requirements of subsection (5)(b), (c), or (d) and if the department determines that the material is protective of the public health and environment. In making the determination, the department shall consider the potential for exposure and risk to human health and the environment given the nature of the material, its proposed use, and the environmental fate and transport of any hazardous substances in the material in soil, groundwater, or other relevant media.

(7) The department shall approve a material as a low-hazard industrial waste if hazardous substances in representative samples of the material do not leach, using, at the option of the generator, EPA method 1311, 1312, or any other method approved by the department that more accurately simulates mobility, above the higher of the following:
   (a) One-tenth the hazardous waste toxicity characteristic threshold as set forth in rules promulgated under part 111.
   (b) Ten times the generic residential groundwater drinking water cleanup criteria as set forth in rules promulgated under part 201.

(8) The department shall approve a material as a source separated material if the person who seeks the designation demonstrates that the material can be recycled or converted into raw materials or new products by being returned to the original process from which it was generated, by use or reuse as an ingredient in an industrial process to make a product, or by use or reuse as an effective substitute for a commercial product. To qualify as a source separated material, the material, product, or reuse must meet all federal and state consumer protection and product safety laws and regulations and must not create a nuisance. If a material will be applied to or placed on the land, or will be used to produce products that are applied to or placed on the land, the material must qualify as an inert material or beneficial use by-product.

(9) Any written determination by the department made prior to the effective date of the amendatory act that added this section designating a material as an inert material, an inert material appropriate for general reuse, an inert material appropriate for reuse at a specific location, an inert material appropriate for specific reuse instead of virgin material, a source separated material, a site separated material, a low-hazard industrial waste, or a non-solid-waste material remains in effect according to its terms or until forfeited in writing by the person who received the determination. Upon termination, expiration, or forfeiture of the written determination, the current requirements of this part control. The amendments made to this part by the amendatory act that added this section do not rescind, invalidate, limit, or modify any such prior determination in any way.

Part 115 Rules of Act 451

R 299.4101 Definitions; A, B.
As used in these rules:

* * *

(o) "Background" means the concentration or level of a substance which exists in the environment at or regionally proximate to a site and which is not attributable to any release at or regionally proximate to the site.

R 299.4102 Definitions; C to E.
As used in these rules:

* * *

(b) "Commercial waste" means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, but does not include household waste from single residences, hazardous waste, and industrial wastes. Commercial waste includes solid waste from any of the following:
(i) Multiple residences.
(ii) Hotels and motels.
(iii) Bunkhouses.
(iv) Ranger stations.
(v) Crew quarters.
(vi) Campgrounds.
(vii) Picnic grounds.
(viii) Day-use recreation areas.

* * *

(f) "Construction and demolition waste" means waste building materials, packaging, and rubble that results from construction, remodeling, repair, and demolition operations on houses, commercial or industrial buildings, and other structures. Construction and demolition waste includes trees and stumps which are more than 4 feet in length and 2 inches in diameter and which are removed from property during construction, maintenance, or repair. Construction and demolition waste does not include any of the following, even if it results from the construction, remodeling, repair, and demolition of structures:
(i) Asbestos waste.
(ii) Household waste.
(iii) Corrugated containerboard.
(iv) Appliances.
(v) Drums and containers
(vi) Any aboveground or underground tank and associated piping, except septic tanks.
(vii) Solid waste that results from any processing technique which renders individual waste components unrecognizable, such as pulverizing or shredding, unless the type and origin of such waste is known not to contain the wastes listed in paragraphs (i) to (vi) of this subdivision

* * *

(n) "Environmental contamination" means the release of a hazardous substance in a quantity that is or may become injurious to the environment or to the public health, safety, or welfare.

R 299.4103 Definitions; F to L.
As used in these rules:

* * *

(b) "Floodplain" means the lowland and relatively flat areas which adjoin inland and coastal waters and which are inundated by the 100-year flood. The 100-year flood is a flood that has a 1% or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.
(c) "Floodway" means the channel of a watercourse and those portions of the floodplain adjoining the channel that are reasonably required to transmit the 100-year flood.
(d) "Food processing wastes" means solid wastes that result from processing fruits and vegetables for preservation by freezing, drying, or canning.

* * *

(k) "Household waste" means any solid waste that is derived from single households, but does not include any of the following:
  (i) Commercial waste.
  (ii) Industrial waste.
  (iii) Construction and demolition waste.

* * *

(m) "Incinerator" means a device which is specifically designed for the destruction, by burning, of garbage or other combustible refuse or waste material, or both, and in which the products of combustion are emitted into the outer air by passing through a stack or chimney. For purposes of the act and these rules, the following devices are not incinerators:
  (i) A thermal treatment unit that is designed solely for the purpose of destroying contaminants in soil.
  (ii) Boilers, industrial furnaces, or power plants that burn site-separated material, source-separated material, or industrial waste as fuel.
  (iii) A device that is used to incinerate medical waste and other waste from a facility that generates medical waste.

(n) "Industrial waste" means solid waste which is generated by manufacturing or industrial processes or originates from an industrial site and which is not a hazardous waste regulated under part 111 of the act.

* * *

(w) "Liquid waste" means any waste material that is determined to contain free liquids as defined by method 9095, the paint filter liquids test, as described in the publication entitled "Test Methods for Evaluating Solid Wastes, Physical-Chemical Methods" SW-846, which is adopted by reference in R 299.4133. For purposes of the act and these rules, liquid waste does not include industrial waste sludges that are disposed of at a location other than a type II landfill.

R 299.4104 Definitions; M to R.

As used in these rules:

(a) "Medical waste" means waste as defined in section 13825 of 1978 PA 368, MCL 333.13825.

(b) "Method detection limit" means the minimum concentration of a substance which can be measured and reported with 99% confidence, for which the analyte concentration is greater than zero, and which is determined from analysis of a sample in a given matrix that contains the analyte.

* * *

(q) "Processing" means changing the physical or chemical character of solid waste, by separation, treatment, or other methods, so as to make the waste or a constituent of the waste disposable or usable as a resource. The following activities do not constitute processing:
  (i) Compaction.
  (ii) Incineration, thermal treatment of contaminated soil, or burning waste as fuel, if these activities are permitted under part 55 of the act.
  (iii) Metal processing by scrap dealers.
  (iv) Industrial operations that use, reuse, or reclaim industrial waste, sourceseparated material, or site-separated material to make a raw material or new product.
  (v) Separation of recyclable materials from small quantities of solid waste. A small quantity is not more than 2 tons per day or 60 tons per month.
  (vi) Separation of recyclable material at a landfill.
  (vii) The separation of small quantities of solid waste from source-separated material. The volume of solid waste removed shall be considered a small quantity if it is less than 10% of the total volume of material received.
  (viii) Composting of yard clippings, if the requirements of section 11521 are met.
  (ix) Composting of material other than yard clippings which is approved under R 299.4121 and which does not involve more than 500 cubic yards at any time. Composting facilities exceeding 500 cubic yards shall be licensed as processing plants.
  (x) Shredding or chipping of trees, stumps, and brush.
  (xi) Treatment of contaminated soil or other waste generated from the remediation of environmental contamination at the site of environmental contamination before disposal at a facility licensed under this part.
  (xii) The addition of small quantities of sorbent material to individual loads of waste within the active portion of a type II landfill.

* * *

(s) "Regulated hazardous waste" means a hazardous waste, as defined in R 299.9203, that is not excluded from regulation under R 299.9204 or that was not generated by a conditionally exempt small quantity generator as defined in R 299.9205.

R 299.4105 Definitions; S to W.

As used in these rules:

* * *

(e) "Sludge" means any solid or semisolid waste that is generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility. "Sludge" also includes any other semisolid industrial waste.

* * *

(l) "Speculative accumulation" means the storage of material intended for recycling or reuse at a site for a period of over 1 year, or for low-hazard industrial waste accumulated at the site of generation, a period of 3 years. A material is not accumulated speculatively, however, if the person who accumulates it can show that the material can be recycled into marketable raw materials or new products and that, during the period, the amount of material that is recycled or that is transferred to a different site for recycling equals not less than 75%, by weight or volume, of the amount of material that was accumulated at the beginning of the period.

R 299.4106a Definitions of terms used in act.

As used in the act:

* * *

(c) "Conversion" means the process by which any of the following is recycled into marketable raw materials or new products:
- (i) Glass.
- (ii) Metal.
- (iii) Wood.
- (iv) Paper products.
- (v) Plastics.
- (vi) Rubber.
- (vii) Textiles.
- (viii) Garbage.
- (ix) Yard clippings.
- (x) Other materials approved by the department.

Conversion includes the composting of yard clippings and compostable material in accordance with these rules, but does not include the speculative accumulation of the materials specified in this subdivision.

* * *

(f) "New products" means marketable consumer goods produced from site separated or source-separated material. New products shall not be used in a manner constituting disposal, unless the new products are any of the following:
- (i) Inert materials.
- (ii) Compost produced from yard clippings.
- (iii) Compostable material.
- (iv) Material applied to the land for agricultural or silvicultural use in a manner consistent with the act and these rules.

(h) "Raw materials" means materials that are returned for reuse to the original industry which produced the material, that are sold for use in an industrial process to make new products, or that are used as fuel in a unit permitted to burn the material as fuel under part 55 of the act.

(i) "Rubber" means crumb rubber or ground tires that does not contain steel and fiber.

(j) "Scrap" means metal that is a recyclable material. Used appliances shall not be considered scrap unless capacitors or other parts that may contain polychlorinated biphenyls have been removed and disposed of in compliance with the act and TSCA, if applicable.

R 299.4110 "Other wastes regulated by statute" defined.

As provided by section 11506 of the act, the following wastes are "other wastes regulated by statute" and are exempt from regulation as solid wastes under part 115 of the act:

(a) Hazardous waste regulated under part 111 of the act.

(b) Waste which is contaminated by polychlorinated biphenyls and which is disposed of in a facility that is licensed under TSCA.
(c) Drilling muds, land clearing debris, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy, when managed within the same field where it was generated and where such management is authorized by the supervisor of wells in a permit or order issued under part 615 of the act.
(d) Dredgings that are approved by the department for disposal under either of the following provisions:
  (i) By issuance of a permit issued under part 301 or part 325 of the act authorizing the disposal, if dredgings of more than 300 cubic yards that are removed from either an area of concern identified by the international joint commission or an area adjacent to or immediately downstream of a facility regulated under part 201 of the act are evaluated for contamination and, if contaminated, are managed in a manner consistent with part 201 of the act. To evaluate dredgings for contamination, a person shall do either of the following:
    (A) Analyze for PCB's, polynuclear aromatic hydrocarbons, and the metals identified in table 101. Dredgings shall not be considered contaminated if they meet the criteria for inert material specified in section 11553(5) or (6).
    (B) Instead of analyses, demonstrate that the particle sizes of the dredgings are such that 95% or more of the particles will be retained on a No. 200 sieve.
  (ii) By department approval of a finding of no significant impact prepared under the national environmental policy act of 1969, §42 U.S.C. 4321 et seq.
(e) Tires that are managed in compliance with part 169 of the act.
(f) Animals that are composted or disposed of in accordance with 1982 PA 239, MCL 287.651 to 287.683.
(g) Earth overburden, rock, lean ore, and iron ore tailings that are regulated under part 631 of the act.
(h) Septage waste which is regulated under part 117 of the act and which is disposed of in a land application unit.
(i) The following waste that is regulated under part 31 of the act:
  (i) Liquid waste that is disposed of in accordance with a permit or order issued under part 31 of the act, except for sludges or residues that are generated from the disposal.
  (ii) Sludge that is disposed of in a land application unit under a residuals management plan which is approved under part 31 of the act.
(j) The following waste, at the point that it is regulated under part 55 of the act:
  (i) Wood and stumps that are burned in accordance with part 55 and part 515 of the act.
  (ii) Medical waste that is burned in a unit which is permitted or licensed to burn the waste under part 55 of the act. Medical waste that is disposed of at a location other than

R 299.4111 Nondetrimental material managed for agricultural or silvicultural use; conditions for exemption as solid waste.

(1) A person shall not apply sludges, ashes, or other solid waste to the land without having obtained a license under the act, unless the director has approved a plan for managing the wastes as nondetrimental materials that are appropriate for agricultural or silvicultural use or has otherwise authorized the application under part 31 of the act.
(2) A plan for managing nondetrimental materials that are appropriate for agricultural or silvicultural use shall contain all of the following information:
  (a) Analytical data that is required under R 299.4118a to characterize the material.
  (b) Additional characteristics of the material applicable to its proposed use. Wastes that are proposed for use as fertilizer shall be characterized by representative sampling and analysis for all of the following using analytical procedures that are specified by the EPA publication entitled "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", SW-846, 3rd edition, which is adopted by reference in R 299.4133, or the document entitled "Standard Methods for the Examination of Water and Wastewater," 19th edition, which is adopted by reference in R 299.4139:
    (i) Percent dry solids.
    (ii) Total kjeldahl nitrogen.
    (iii) Total ammonia nitrogen.
    (iv) Nitrate nitrogen.
    (v) Total phosphorus.
    (vi) Specific gravity.
    (vii) Chemical oxygen demand.

(viii) Five-day biological oxygen demand.
(ix) pH

(c) All of the following information to characterize the soil types at the application area or areas:
(i) Soil type.
(ii) Soil pH.
(iii) Lime index.
(iv) Cation exchange capacity.
(v) Proposed nutrient application rates.

(d) The name and address and written approval of the titleholder of the land or lands.
(e) The proposed application rate.
(f) The proposed method of application, including the equipment to be used.
(g) The method and frequency of soil tilling to be employed.
(h) The type of vegetation to be maintained, and how it will be managed.

(3) The director shall approve a plan that is submitted under this rule if he or she finds that application of the material to the land will serve as an effective fertilizer or soil conditioner or serve another beneficial use and will be applied to the soil at an agronomic rate, but will not violate part 31 or part 55 of the act or any other state law and will not create a nuisance.

(4) The director shall approve or deny a plan that is submitted under this rule within 120 days of receiving a plan that contains the information specified in subrule (2) of this rule. The director shall impose any conditions on a plan that are necessary to protect human health and the environment..

R 299.4117 Criteria for designating inert materials appropriate for specific reuse instead of virgin material.

(1) A person may petition the director to designate a solid waste as an inert material appropriate for a specific type of reuse instead of virgin material.

(2) The director shall approve a petition pursuant to this rule if the petition demonstrates any of the following:
(a) The material meets the criteria of section 11553(5) or (6).
(b) The material does not pose a greater hazard to human health and the environment during reuse than the virgin material that it replaces when used in the following manner:
(i) As a component of concrete, grout, mortar, or casting molds.
(ii) When used as a raw material in asphalt for road construction.
(iii) As aggregate, road, or building material that, in ultimate use, will be stabilized or bonded by cement, limes, or asphalt.
(iv) In other uses that are approved by the director.

(3) A petition to designate a material as inert for specific reuse shall contain the information specified in R 299.4118a for all of the following:
(a) The waste material itself.
(b) The product, if any, that contains the waste as a component.
(c) Either or both of the following, if necessary for comparison with the waste or waste product:
(i) The raw material that the waste replaces.
(ii) The product, if any, that contains raw material other than waste.

(4) A person may conduct a pilot project on the suitability of using low-hazard industrial waste for a specific reuse if all of the following conditions are met:
(a) The amount used is not more than 100 tons.
(b) The person notifies the director or his or her designee before use.
(c) The person submits a report on the reuse, as specified in subrule (6) of this rule.
(d) The person verifies that the storage of low-hazard industrial waste awaiting the pilot project has not resulted in environmental contamination.

(5) A person may petition the director to designate a solid waste that is not in compliance with the definition of a low-hazard industrial waste as an inert material for the purpose of conducting a pilot project on the suitability of the waste for a specific reuse. The director shall approve the petition if both of the following conditions are met:
(a) The petition includes a detailed description of the proposed pilot project, including all of the following:
(i) The location of the project.
(ii) A description of the waste, including a characterization that complies with the provisions of R 299.4118a.
(iii) The volume of waste to be used.

(iv) The nature of the reuse, and a description of any processes that are required to convert the waste to a product.
(v) The procedures for conducting all testing on the final product to determine compliance with the provisions of subrule (1) of this rule which ensure representative sampling of the final product.
(vi) The proposed completion date.

(b) The director determines that the project does not pose an unacceptable risk of environmental contamination.

(6) A person who conducts a pilot project pursuant to the provisions of this rule shall submit a final report to the director or his or her designee within 90 days of the completion date that describes the results of the project.

R 299.4118a Petitions to classify wastes.

(1) A person may petition the director to designate a material as beneficial use by-product for 1, 2, 4, or 5, inert material, a source separated material, a site separated material, a low hazard industrial waste, another material that could be approved by the department under part 115, nondetrimental or recycled material pursuant to R 299.4111, inert material appropriate for specific reuse pursuant to R 299.4117 or a compostable material pursuant to R 299.4121.

(2) A petition to classify a material and its use shall include all of the following information:
(a) The name and site address of the facility that generates or uses the material.
(b) The facility contact person and phone number.
(c) The general description of the material for which the petition is submitted, including all of the following:
(i) A description of the process that is used to produce the material, including a schematic diagram of the process and a list of raw materials that are used in the process.
(ii) Documentation that the material is not a hazardous waste, as defined in part 111 of the act and the administrative rules promulgated under part 111 of the act.
(iii) The proposed use or disposal method for the material.
(d) Analytical testing on a representative number of samples consistent with its use. Four samples shall be considered to be the minimum number of samples that must be tested and may increase depending on the variability of the sample results. If a hazardous substance is reported to be present in a sample at concentrations above the classification criteria of these rules, a person may demonstrate that the data are not statistically significant, using 1 of the methods specified in R 299.4908. Sampling shall be done consistent with the requirements contained in the EPA document entitled "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW-846 3rd edition, which is adopted by reference in R 299.4133; 1 or more peer-reviewed standards developed by a national or international organization such as ASTM International, 1 or more standards approved by the department or EPA, or any other method approved by the department that more accurately simulates mobility. The samples shall be tested as relevant for the determination for total concentrations, leachable concentrations, or both, of any hazardous substance that the person has knowledge or has reason to believe could be present in the material at a level of concern.
(e) Chain of custody.
(f) Quality control/quality assurance information from the testing lab.
(g) In lieu of submitting information required in subdivisions (d) to (f) of this subrule, a petitioner may demonstrate that a material is a beneficial use by-product by submitting relevant and appropriate documentation for a determination under MCL 324.11553(4).
(h) In lieu of submitting information required in subdivisions (d) to (f) of this subrule, a petitioner may demonstrate that a material is an inert material by submitting relevant and appropriate documentation for a determination under MCL 324.11553(6).
(i) In lieu of submitting information required in subdivisions (d) to (f) of this subrule, a petitioner may demonstrate that a material is source separated in accordance with MCL 324.11506(6)(k) by submitting relevant and appropriate documentation for a determination under MCL 324.11553(8).
(j) In lieu of submitting information required in subdivisions (d) to (f) of this subrule, a petitioner may demonstrate that a material is site separated material by submitting relevant and appropriate documentation consistent with MCL 324.11505(9).
(k) In lieu of submitting information required in subdivisions (d) to (f) of this subrule, Petitioner may demonstrate that a material fits a requested classification recognized in another provision of part 115, MCL 324.11501 et seq., which allows for approval by the department by submitting relevant and appropriate documentation consistent with the cited provision.

R 299.4121 Petitions for use of solid waste other than yard clippings as compost.

(1) A person shall not use a solid waste, other than yard clippings, as compost, unless the director approves the waste as a separated material appropriate for such use pursuant to the provisions of this rule.

(2) A person who proposes to separate a waste for use as compost shall file a petition with the director pursuant to the provisions of R 299.4118a. To characterize such compost, the petitioner shall include all of the following information in the petition:
   (a) The type of waste and its potential for creating a nuisance or environmental contamination.
   (b) Compost maturity, as determined by a reduction of organic matter during composting. Organic matter shall be determined by measuring the volatile residues content using EPA method 160.4 or another method that is approved by the director.
   (c) Foreign matter content, as determined by drying a sample of compost using EPA method 160.3 and by passing a weighed sample of the dried compost through a 14- or 6-millimeter screen. The material remaining on the screen shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample multiplied by 100 shall be the foreign matter content.
   (d) Particle size, as determined by a sieve analysis.

(3) The director shall approve a material for use as compost if the person who proposes such use demonstrates all of the following:
   (a) The material has or will be converted to compost under controlled conditions at a composting facility.
   (b) The material will not be a source of environmental contamination or cause a nuisance.
   (c) Use of the compost material will be done at agronomic rates.

(4) EPA methods 160.3 and 160.4 are contained in the document entitled "Methods for Chemical Analysis of Water and Waste, EPA-600," March, 1979 edition, and are adopted by reference in R 299.4138.

R 299.4131 Federal asbestos regulations; adoption by reference.

(1) The definition of asbestos-containing waste material and related definitions contained in 40 C.F.R. §61.141 are adopted by reference in these rules.

(2) The asbestos standards for active waste disposal sites contained in 40 C.F.R. §61.154 are adopted by reference in these rules.

(3) Federal asbestos regulations are contained in 40 C.F.R. parts 61 to 62, July 1, 1997 edition. The 1997 edition is available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, at a cost as of the time of adoption of these rules of $19.00, or from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $19.00. The regulations specified in this rule are available for inspection at the Lansing office of the department.

R 299.4133 Test methods for evaluation of solid waste; adoption by reference.

(1) The publication entitled "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," being EPA publication SW-846, 3rd edition, November 1986, and its updates I (July 1992), II (September 1994), 11A (August 1993), IIB (January 1995), and III (June 1997) are adopted by reference in these rules.

(2) The documents listed in subrule (1) of this rule are available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, at a cost as of the time of adoption of these rules of $319.00, or from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $319.00. The documents are available for inspection at the Lansing office of the department.

R 299.4134 List of hazardous inorganic and organic constituents; adoption by reference.

(1) The list of hazardous inorganic and organic constituents contained in 40 C.F.R. part 258, appendix II, is adopted by reference in these rules.

(2) The regulations setting forth the classification of solid waste disposal facilities and practices are contained in 40 C.F.R. part 257.3-4 and 40 C.F.R. part 257, appendix I, and are adopted by reference in these rules.

(3) The appendices specified in subrules (1) and (2) of this rule are contained in 40 C.F.R. parts 190 to 259, July 1, 1997 edition. The 1997 edition is available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, at a cost as of the time of adoption of these rules of $22.00, or from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $22.00. The regulations are available for inspection at the Lansing office of the department.

R 299.4135 ASTM standards; adoption by reference.

(1) The following ASTM standards are adopted by reference in these rules:
   (a) D422-63(90), test method for particle size analysis of soils.
   (b) D698-91, test method for laboratory compaction characteristics of soil using standard effort.
   (c) D1557-91, test method for laboratory compaction characteristics of soil using modified effort.
   (d) D2434-68)(94), test method for determining permeability of granular soils (constant head).
   (e) D2922-96, test method for determining the density of soil and soil aggregate in place by nuclear methods (shallow depth).
   (f) D2487-93, classification of soils for engineering purposes (unified soil classification system).
   (g) D4318-95a, test method for liquid limit, plastic limit and plasticity index of soils.
   (h) D5084-90, test method for hydraulic conductivity of saturated porous materials using a flexible wall permeameter.

(2) The standards listed in subrule (1)(a) to (e) and (h) of this rule are available from the American Society for Testing and Materials, Sales Service, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, at a cost as of the time of adoption of these rules of $18.00 each. The standard listed in subrule (1)(f) and (g) of this rule is available from the American Society for Testing and Materials, Sales Service, 100 Barr Harbor Drive, West Conshohocken, Pennsylvania 19428, at a cost as of the time of adoption of these rules of $21.00. The standards listed may also be obtained from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $18.00 and $21.00 each, respectively. The standards adopted in this rule are available for inspection at the Lansing office of the department.

R 299.4138 EPA methods for analysis of total and volatile residue; adoption by reference.

(1) The EPA methods for the analysis of total and volatile residue specified in EPA methods 160.3 and 160.4 of the document entitled "Methods for Chemical Analysis of Water and Wastes, EPA-600," March, 1979 edition, is adopted by reference in these rules.

(2) The test methods listed in subrule (1) of this rule are available from the Michigan Department of Natural Resources, Waste Management Division, P.O. Box 30028, Lansing, Michigan 48909, free of charge. The test methods are available for inspection at the Lansing office of the department.

R 299.4139 Standard methods for the examination of water and wastewater; adoption by reference.

(1) The test methods contained in the document entitled "Standard Methods for the Examination of Water and Wastewater," 19th edition, are adopted by reference in these rules.

(2) Copies of the document entitled "Standard Methods for the Examination of Water and Wastewater," 19th edition, may be purchased at a cost of $180.00, plus $12.00 shipping, from the American Public Health Association, 1015 15th Street, NW, Washington, DC 20005, or from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $192.00. The test methods are available for inspection at the Lansing office of the department.

R 299.4140 Definition of PCBs and PCB items; adoption by reference.

(1) The definition of PCBs and PCB items contained in 40 C.F.R. §761.3 is adopted by reference in these rules.

(2) The provisions of 40 C.F.R. §761.3 are contained in 40 C.F.R.parts 700 to 789, July 1, 1997 edition. The 1997 edition is available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, at a cost as of the time of adoption of these rules of $38.00, or from the Michigan Department of Environmental Quality, Waste Management Division, P.O. Box 30241, Lansing, Michigan 48909, at a cost as of the time of adoption of these rules of $38.00. The regulations are available for inspection at the Lansing office of the department.