

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTE AND HAZARDOUS MATERIALS DIVISION
SOLID WASTE MANAGEMENT

Filed with the Secretary of State on

These rules take effect immediately upon filing with the Secretary of State-

(By authority conferred on the director and the Michigan department of environmental quality by sections 11538, 11539, and 11540 of 1994 PA 451, and the Executive Reorganization Order No. 1995-16, being MCL 324.11538, 324.11539, 324.11540, and 324.99903.)

R 299.4101, R 299.4102, R 299.4103, R 299.4104, R 299.4105, R 299.4110, R 299.4111, R 299.4113, R 299.4114, R 299.4115, R 299.4116, R 299.4117, R 299.4118, R 299.4119, R 299.4120, R 299.4121, R 299.4122, R 299.4123, R 299.4124, R 299.4125, R 299.4126, R 299.4127, R 299.4129, of the Michigan Administrative Code are amended, R 299.4142, R 299.4120a, R 299.4120b, R 299.4120c, R 299.4121a, R 299.4121b, R 299.4121c, R 299.4121d, R 299.4121e, R 299.4121f, R 299.4121g, R 299.4121h, R 299.4121i, R 299.4121j, R 299.4121k, are added to the code to read as follows:

PART 1. GENERAL PROVISIONS

R 299.4101 Definitions; A, B.

Rule 101. As used in these rules:

(a) "AASHTO" means American association of state highway and transportation officials.

(b) "Act" means **1994 PA 451, MCL Act No. 451 of the Public Acts of 1994, as amended, being §324.101 et seq. of the Michigan Compiled Laws**, and known as the natural resources and environmental protection act.

(c) "Act 299" means **1980 PA 299, MCL Act No. 299 of the Public Acts of 1980, as amended, being §399.101 et seq. of the Michigan Compiled Laws**, and known as the occupational code.

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

(e) "Act 399" means **1976 PA 399, MCL Act No. 399 of the Public Acts of 1976, as amended, being §325.1001 et seq. of the Michigan Compiled Laws**, and known as the safe drinking water act.

(f) "Active life" means the period of operation beginning with the initial receipt of solid waste and ending with the completion of closure activities **under pursuant to** the act and these rules.

(g) "Active portion" means that part of a facility or unit that has received or is receiving wastes and that has not been partially or finally closed **under pursuant to** these rules. The active portion does not include areas that have interim cover which complies with R 299.4429(7) or a constructed unit or portion of a unit that has not received waste.

(h) "Active work area" means the area which is or shall be used for the storage, transport, or disposal of solid waste, methane gas, or leachate or in which heavy equipment is or shall be used as part of the landfill operation. The active work area includes all of the following:

DRAFT 12/09/2009 (Rev 8)
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- (i) The active portion.
- (ii) Leachate collection and storage systems, exclusive of any of the following:
 - (A) Forcemains.
 - (B) Sewers.
 - (C) Enclosed manholes.
 - (D) Sewer hookups.
- (iii) Gas collection and handling systems, exclusive of any of the following:
 - (A) Enclosed flares.
 - (B) Energy recovery facilities.
 - (C) Pipelines for gas and gas condensate associated with energy recovery facilities.
- (iv) Heavy equipment storage and maintenance areas and borrow areas in which heavy equipment is or shall be used.
- (v) Haul roads used for waste transport, exclusive of the entrance and scales.
- (vi) Any on-site processing plant.
- (vii) Other operations that involve the storage or disposal of solid waste or leachate.

Operations that do not involve the storage or disposal of solid waste or leachate, such as any of the following, are not part of the active work area:

- (A) Monitoring wells.
- (B) Access roads.
- (C) Berms.
- (D) Screening.
- (E) Storm water retention ponds.
- (F) Light duty maintenance buildings.
- (G) Office buildings.

(h) "Agronomic rate" means **the calculated application rate that provides the amount of plant available nitrogen needed by the crop or vegetation grown; and that considers the amount of phosphate, potash, and micro-nutrients added as part of the total nutrient management, or at rates recognized by the agricultural and environmental communities to improve the physical nature of the soil, such as structure, tilth, water retention capacity or porosity.**

(j) **"Animal bedding" means mixtures of manure and wood chips, saw dust, shredded paper or card board, hay, straw, or other similar fibrous materials normally used for this purpose.**

(k) "Applicant" means an owner or operator who has applied for a construction permit or operating license under part 115 of the act.

(l) "Appropriate organization" means an organization that has demonstrated, or is demonstrating, a substantial interest in solid waste management.

(m) "Aquifer" means a geologic formation, group of formations, or portion of a formation that is capable of yielding significant quantities of groundwater to wells or springs.

(n) "Asbestos waste" means asbestos-containing waste material, as defined in 40 C.F.R §61.141 under the national emission standard for asbestos. The definition of asbestos-containing waste material and related definitions are adopted by reference in R 299.4131.

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

(p) "Attendant" means the individual who accepts solid waste at the entrance to the solid waste disposal area.

(q) "Average daily flow rate" means the average flow, in gallons per acre per day, removed from a secondary collection system or leak detection during the last 3 months. The average daily flow rate shall be calculated monthly by averaging the flow rate for the current month with those from the preceding 2 months.

(r~~p~~) "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 a release at or regionally proximate to the site.

(s) **"Beneficial Use"** means the productive use of solid waste in a manufacturing process, as an effective substitute for a raw material or commercial product, or a use otherwise authorized by the department; in a manner that will not create an adverse impact to public health, safety, welfare or the environment. Beneficial use does not include materials used in compliance with R 299.4114.

(t) **"Broker"** means a person that receives a material directly from the generator and sells/gives it to a processor or end user without changing the physical or chemical character of the material.

R 299.4102 Definitions; C to E.

Rule 102. As used in these rules:

(a) **"Category 1 industrial by-product"** means any industrial by-product listed in R 299.4103(p) that is not a regulated hazardous waste under part 111 but exceeds the criteria for low-hazard waste in R 299.4122 as determined by the generator of the waste using either testing or knowledge are category 1 industrial by-products.

(b) **"Category 2 industrial by-product"** means any industrial by-product listed in R 299.4103(p) that is a categorical low-hazard waste under R 299.4122(1)(a) to (q) or is another by-product that meets the criteria of a low-hazard waste listed in R 299.4122(2), as determined by the generator using knowledge or representative sampling and R 299.4122(3) as determined by the generator based on testing of representative samples in compliance with R 299.4118.

(c) **"Category 3 industrial by-product"** means any industrial by-product listed in R 299.4103(p) that meets the criteria of R299.4115 as determined by the generator based on testing of representative samples in compliance with R 299.4118.

(d) **"Category 4 industrial by-product"** means any industrial by-product listed in R 299.4103(p) that contains contaminants less than the background as defined in R 299.4115(2)(b)(i) and (ii) or 25% of the inert standard contained in R 299.4115(2)(b)(iv) as determined by the generator based on testing of representative samples in compliance with R 299.4118.

(e~~a~~) **"Cement kiln dust"** means particulate material that is collected in air emission control devices that serve portland cement kilns.

(f) **"Class 1 compostable material"** means wood, garbage, paper products, manures other than organic waste generated in the production of livestock and poultry, compostable products, dead animals not managed under the bodies of dead animals act, spent grain from breweries, sugar beet limes, or other materials approved by the department under R 299.4121i. Additionally class 1 compostable materials include food processing residuals, aquatic plants, wood ash, lime from a kraft paper process prior to bleaching, managed in a manner other than that described in Section 324.11506(g) of the act. A mixture of any of these materials or a mixture of these materials and organic waste generated in the production of livestock and poultry is considered to be class 1 compostable material unless the material is managed according to Rule 299.4121a(5).

(g) **"Class 1 composting facility"** means a composting facility that meets the requirements of R 299.4121c where class 1 compostable material or a combination of class 1 compostable material and yard clippings is composted.

(h) **"Class 2 compostable material"** means any compostable material, excluding yard clippings, organic waste generated in the production of livestock and poultry, and dead animals managed under the bodies of dead animals act, and not listed or approved as a class 1 compostable material.

(i) "Class 2 composting facility" means a composting facility that meets the requirements of R 299.4121c where class 2 compostable material or a combination of class 2 compostable material with class 1 compostable material and/or yard clippings is composted.

~~(j)~~ "Closed unit" means a landfill unit at which final closure has been completed and certified ~~under pursuant to~~ R 299.4317 or R 299.4449.

~~(k)~~ "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.

~~(l)~~ "Composite liner" means a system that consists of both of the following components:

(i) An upper component that consists of a flexible membrane liner that is installed in direct and uniform contact with the lower compacted soil component. The flexible membrane liner shall have a nominal thickness not less than 30 mils thick. For high-density polyethylene components, the flexible membrane shall have a nominal thickness not less than 60 mils.

(ii) A lower component that consists of any of the following soil layers:

(A) Compacted soil that is not less than 2 feet thick and which is in compliance with R 299.4913.

(B) A bentonite geocomposite liner that is in compliance with R 299.4914.

(C) An alternative soil layer that is approved under these rules.

~~(f) "Composting facility" means a facility where composting of yard clippings or compostable material occurs using composting technology. Composting technology may include physical turning, windrowing, aeration, or other mechanical handling of organic matter.~~

(m) "Compost" means organic matter that has undergone biological decomposition by composting, has been stabilized to a degree that it is beneficial to plant growth without creating a nuisance, and is used or sold for use as a soil amendment, topsoil blend, or growing medium amendment or for other similar uses. Compost may contain material other than organic matter that aids in producing a quality end product for such uses.

(n) "Compostable" means a material able to be converted to compost.

(o) "Compostable products" means biodegradable containers, fabric, utensils, and other products that meet the ASTM standard D6400.

~~(p)~~ "Composting" means the process by which biological decomposition of yard clippings, **class 1 compostable material** or **class 2** compostable material is carried out under controlled aerobic conditions, **or within a controlled system designed for the anaerobic decomposition of organic matter**, and which stabilizes the organic fraction into a material that can easily and safely be stored, handled, and used in an environmentally acceptable manner. The presence of insignificant anaerobic zones within the composting material will not cause the process to be classified as other than composting.

~~(q)~~ "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 that 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 the 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.

(rh) "Contiguous property" means the same or geographically contiguous property that may be divided by a public or private right-of-way. Pieces of property owned by the same person and connected by a right-of-way which the owner controls and to which the public does not have access are also contiguous.

(s) "Department" means the department of environmental quality.

(ti) "Designated planning agency," means a governmental unit or regional planning agency that is determined, under the act, to be responsible for the preparation of a solid waste management plan.

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

(vj) "Disease vectors" means rodents, flies, mosquitoes, or other animals, including insects, which are capable of transmitting disease to humans.

(wk) "Disposal" means any of the following:

(i) The discharge, deposit, injection, dumping, spilling, leaking, or placing of the solid waste into or on the land or water so that the solid waste or the constituent thereof may enter the environment or be emitted into the air or discharged into the waters, including groundwaters. Disposal includes the placement of solid waste in an open dump, landfill, or waste piles that are not exempt under R 299.4129(2) or R 299.4130.

(ii) The open burning or incineration of solid waste.

(iii) The processing of solid waste.

(iv) The storage or handling of solid waste at a solid waste transfer facility.

(v) The abandonment of solid waste in place of other disposal.

(xl) "Disposal area type" means 1 of the following types of disposal areas defined by the act and these rules:

(i) Municipal solid waste landfill.

(ii) Industrial waste landfill.

(iii) Construction and demolition waste landfill.

(iv) Municipal incinerator ash landfill.

(v) Incinerator.

(vi) Processing plant.

(vii) Transfer facility.

(viii) Waste pile.

(ym) "Domestic well" means a well that is intended to furnish water to a single household for any beneficial use.

(z) "Dredge material" means organic and inorganic material removed from waters of the state as defined by part 31.

(aa) "End user" means a person that receives a material from a generator, broker, or processor.

(bb) "Enforceable mechanism" means a legal method whereby the state, a county or municipal government, or a person can take action to guarantee compliance with an approved county solid waste management plan. Enforceable mechanisms include any of the following:

- (i) Contracts.
- (ii) Intergovernmental agreements.
- (iii) Laws.
- (iv) Ordinances.
- (v) Rules.
- (vi) Regulations.

(cc) "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.

(dd) "Environmental interest group" means a nonprofit citizens' organization that has bylaws, which support environmental enhancement, or the conservation of Michigan's natural resources and that has an organization that does not directly reflect an economic interest of its members.

(ee) "Existing disposal area," means any of the following:

- (i) A disposal area that has been issued a construction permit under the act.
- (ii) A disposal area that had engineering plans approved by the director before

January 11, 1979.

(iii) An industrial waste landfill that was authorized to operate by the director or by court order before October 9, 1993.

(iv) An industrial waste pile that is located at the site of generation on October 9, 1993.

(ff) "Existing unit" or "existing landfill unit" means the landfill unit that receives solid waste as of October 9, 1993. Waste placement in existing landfill units shall be consistent with past operating practices or modified practices to ensure good management.

R 299.4103 Definitions; F to L.

Rule 103. As used in these rules:

(a) "Facility" means a solid waste disposal area as defined in R 299.4106a.

(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 a 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.

(e) "Foreign matter" means organic and inorganic constituents, other than sticks and stones, that will not readily decompose during composting, and do not aid in producing a quality compost, including, but not limited to, plastics, glass, textiles, rubber, metal, ceramics, and painted, laminated, or treated wood.

(fe) "General public" means private citizens who are unlikely to incur a financial gain or loss greater than that of an average homeowner, taxpayer, or consumer as a result of an action taken by a planning committee.

(g) "General use compost" means compost that is produced from class 1 compostable or class 2 compostable materials that meet the requirements of R 299.4121j(1).

(h) "Generator" means any person, by site, whose act or process produces a solid waste defined in Section 11506(1) of the act.

(if) "Geologist" or "qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and who has sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration, professional certifications, or completion of accredited university programs, to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(jg) "Geotextile" means a permeable material that is used with foundation, soil, rock, earth, or other geotechnical engineering-related material as an integral part of a manmade structure or system.

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

(li) "Groundwater level" means the surface of the groundwater in the uppermost aquifer in unconfined conditions or the bottom of the confining bed in confined conditions.

(mj) "Hazardous substance" means a hazardous substance as defined in part 201 of the act.

(nk) "Household waste" means a 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.

(iv) Scrap tires as defined in part 169 of the act.

(ot) "Hydraulic conductivity" or "permeability" means the rate of flow of a liquid under a differential pressure through a material. The hydraulic conductivity of cohesive soils shall be determined using the methods specified in R 299.4920.

(pæ) "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 location facility that generates medical waste.

(q) "Industrial by-product" means an industrial waste that is beneficially reused in compliance with R 299.4120a to R 299.4120d, which include the following:

- (i) Coal ash.**
- (ii) Biomass ash.**
- (iii) Wood ash.**
- (iv) Any combination of coal ash, biomass ash, petroleum coke ash, wood ash, or tire ash.**
- (v) Flue gas desulfurization sludge and synthetic gypsum.**
- (vi) Cement kiln dust.**
- (vii) Lime kiln dust.**
- (viii) Paper mill wastes as defined in R 299.4104(n).**
- (ix) Foundry sands from ferrous and aluminum foundries.**
- (x) Dewatered grinding slurry generated from a public transportation agency road projects.**

(xi) Sugar beet residuals

(xii) Other wastes approved by the director under R 299.4118.

(ræ) "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. **For disposal into a licensed landfill, industrial waste includes sewage sludge, incinerated sewage sludge, or dredge material.**

(se) "Industrial waste landfill" means a landfill that is used for the disposal of industrial waste which has been characterized for hazard and which has been determined to be nonhazardous under part 111 of the act. An industrial waste landfill may accept industrial waste of different types and from different generators, but shall not accept hazardous waste generated by conditionally exempt small quantity generators, as defined under part 111 of the act.

(tp) "Landfill unit" means a discrete area of land which is permitted to receive waste for permanent disposal and which is not a waste pile. For purposes of these rules, the discrete area shall consist of all areas where waste is or shall be contiguous, excluding a portion that has been closed under part 111 of the act. Contiguous portions may be separated by berms and may contain different liner or leachate collection designs and separate leachate collection systems, if waste in ~~one~~ portion is or shall be in contact with waste in another portion. The boundaries of a landfill unit may be increased by lateral extensions consistent with the construction permit or plans approved by the department. A landfill unit may be any of the following:

- (i) A new unit.
- (ii) An existing unit.
- (iii) A preexisting unit.
- (iv) A closed unit.

(ue) "Lateral expansion," means a horizontal expansion of the solid waste boundary of a landfill beyond the limit established in a construction permit or engineering plans approved by the solid waste control agency before January 11, 1979.

(vf) "Lateral extension," means the extension of an existing unit within the solid waste boundary, but beyond that area constructed and licensed on October 9, 1993.

(ws) "Leachate" means liquid that has come in contact with, passed through, or emerged from, solid waste and which contains soluble, suspended, or miscible materials that are removed from the wastes.

(xt) "Lead acid battery" means a storage battery in which the electrodes are grids of lead oxides that change in composition during charging and discharging and in which the electrolyte is dilute sulfuric acid.

(y) "Leak detection system," means the secondary collection system of an unmonitorable unit. The purpose of a leak detection system is to detect, collect, and remove leaks of hazardous substances at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and postclosure period.

(zv) "Lift" means a layer of placed material, including a layer of compacted clay in a landfill layer or cap, or a layer of waste in a sanitary landfill.

(aaw) "Liquid waste" means a 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.

(bbx) "Low-hazard industrial waste" means an industrial waste that has a low potential for groundwater contamination when managed **under** pursuant to these rules. Wastes that meet this definition are designated in R 299.4122.

R 299.4104 Definitions; M to R.

Rule 104. As used in these rules:

(a) "Manager" means the person who has the authority to make operational, managerial, and legal decisions for the class 1 or class 2 composting facility.

(ba) "Medical waste" means waste as defined in section 13825 of **1978 PA 368**, **MCL Act No. 368** of the Public Acts of 1978, as amended, being §333.13825 of the Michigan Compiled Laws.

(cb) "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.

(de) "Monitorable unit" means a landfill unit for which it is possible to determine the unit's impact on groundwater using groundwater monitoring. A unit remains a monitorable unit in any of the following circumstances:

(i) A unit's monitoring system detects hazardous substances above background, but the owner or operator demonstrates that the source of hazardous substances is not a landfill unit at or adjacent to the facility and that other substances that do not exceed background can be used as reliable indicators of leakage from the unit.

(ii) The unit is constructed over or adjacent to an open dump or another unit, but an impact on the groundwater has not been detected from the open dump or another unit.

(iii) The director waives groundwater monitoring for the unit.

(ed) "Municipal solid waste landfill" or "type II landfill" means a landfill which receives household waste or municipal solid waste incinerator ash, and which is not a land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill also may receive other types of solid waste, such as any of the following:

(i) Construction and demolition waste.

(ii) Sewage sludge.

(iii) Commercial waste.

(iv) Nonhazardous sludge.

(v) Hazardous waste from conditionally exempt small quantity generators.

(vi) Industrial waste.

Such a landfill may be publicly or privately owned.

(fe) "New disposal area" means a disposal area that requires a construction permit under the act and includes all of the following:

(i) A disposal area, other than an existing disposal area, that is proposed for construction.

(ii) For landfills, a lateral expansion, vertical expansion, or other expansion that results in an increase in the design capacity of an existing disposal area.

(iii) For disposal areas other than landfills, an enlargement in capacity beyond that indicated in the construction permit or in engineering plans approved before January 11, 1979.

(iv) For all disposal areas, an alteration of an existing disposal area to a different disposal area type than had been specified in the previous construction permit application or in engineering plans that were approved by the director or his or her designee before January 11, 1979.

(gf) "Natural soil barrier" means a combination of natural or recompacted soil that is not less than 10 feet thick and which consists predominantly of soils that have a unified soil classification of SC, ML, CL, CL/ML, or CH. A natural soil barrier may contain soil types other than SC, ML, CL, CL/ML, or CH if the anomalous soils are not hydraulically connected to the uppermost aquifer, do not extend beyond the solid waste boundary, and are not considered as part of the thickness determination.

(hg) "New unit" means a landfill unit that has not received solid waste before October 9, 1993.

(ih) "Nuisance" means conditions that unreasonably interfere with the enjoyment of life and property, such as noise, blowing debris, odors, vectors, or pest animals.

(i) "Open burning," means either of the following:

(ji) A fire from which the products of combustion are emitted directly into the outer air without passing through a stack or chimney.

(ii) The combustion of solid waste without controlling combustion air to maintain adequate temperature for efficient combustion, containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and control of the emission of the combustion products.

(kj) "Open dump," means a disposal area which is not licensed under the act and which is not otherwise authorized by the director.

(lk) "Operator" means the person who is in control of, or responsible for, the operation of a facility or part of a facility.

(ml) "Owner" means the person who owns a facility or part of a facility.

(n) **"Organic waste generated in the production of livestock or poultry" means manures and animal bedding.**

(om) "Paper mill waste" means all of the following waste that is generated by pulp or paper mills:

(i) Wastewater treatment sludge.

(ii) Bark and wood residue.

(iii) Scrap paper.

(iv) Lime mud and grit.

(v) Rejects from screens, cleaners, and pulp mills.

(vi) Green liquor dregs.

(vii) Other wastes that the department determines have similar characteristics.

(pa) "Pile" means a noncontainerized accumulation of solid waste that is used for treatment or storage.

(qe) "Planning committee" means a committee that is established under the act to aid in the preparation of a county solid waste management plan.

(rp) "Practical quantitation limit" means the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory conditions and based on all of the following:

(i) Quantitation.

(ii) Precision and accuracy.

(iii) Normal operation of the laboratory.

(iv) The practical need in a compliance monitoring program to have a sufficient number of laboratories available to conduct the analyses.

(sq) "Preexisting unit" means a landfill unit which is or was licensed under the act, but which does not receive waste after October 9, 1993.

(tr) "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, source-separated 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 an operating landfill or transfer facility.**

(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) **Temporary accumulation or** ~~Composting~~ of yard clippings, if the requirements of ~~R 299.4120~~ Section 324.11521(1)(a) through (g) of the act 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 a time. Composting facilities exceeding 500 cubic yards shall be licensed as processing plants.~~ **of yard clippings, Class 1 compostable material, or Class 2 compostable material per R 299.4121a through R 299.4121k of these rules.**

(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.

~~(ut)~~ "Processor" means a person that receives material from a generator or broker and changes the chemical or physical character of the material to make it usable as a resource by mixing or blending it with other materials.

~~(vs)~~ "Public meeting" means a regularly scheduled meeting of the designated planning agency.

~~(wt)~~ "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.

~~(xu)~~ "Responsible individual" means an individual who is familiar with the requirements of the act and these rules as they relate to the daily operation and maintenance of the solid waste disposal area where he or she is employed and who has the capability and the authority to make decisions regarding the daily operation and maintenance of that disposal area which are necessary to comply with the act and these rules.

(y) "Restricted use compost" means compost that is produced from class 2 compostable materials that does not meet the requirements of R 299.4121j(1) but that is approved by the director pursuant to R 299.121j(2).

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

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

R 299.4105 Definitions; S to W.

Rule 105. As used in these rules:

(a) "Sanitary landfill" means a type of disposal area consisting of 1 or more landfill units and the active work areas associated with these units. Sanitary landfills shall be classified as 1 of the following types of landfills:

(i) A type II landfill, which is a municipal solid waste landfill and includes a municipal solid waste incinerator ash landfill.

(ii) A type III landfill, which is a landfill that is not a municipal solid waste landfill or hazardous waste landfill and includes all of the following:

(A) Construction and demolition waste landfills.

(B) Industrial waste landfills.

(C) Landfills which accept waste other than household waste, municipal solid waste incinerator ash, or hazardous waste from conditionally exempt small quantity generators.

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

(c) "Scavenging" means the uncontrolled picking of materials from solid waste.

(d) "Secondary collection system" means the liquid collection and removal system between the liners of a multiple liner system in a landfill cell. In the case of an unmonitorable unit, the secondary collection system is also a leak detection system.

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

(f) "Specific site" means an area within a municipality or municipalities.

(g) "Sole-source aquifer" means those aquifers that are designated under section 1424(e) of the federal safe drinking water act of 1974, Public Law 93-523, 42 U.S.C. §300h et seq.

(h) "Solid waste boundary" means the outermost perimeter of the solid waste (projected in the horizontal plane) as it would exist at completion of the sanitary landfill and as authorized in a construction permit or in engineering plans approved for the landfill unit by the solid waste control agency before January 11, 1979.

(i) "Solid waste control agency" means the certified health department that has jurisdiction in the county or, in the absence of a certified health department, the department.

(j) "Solid waste management industry" means any of the following:

(i) An individual or organization that derives a substantial portion of its income from the collection, transportation, or disposal of solid waste.

(ii) A manufacturing industry that collects, transports, and disposes of solid waste that is generated incidental to its operation.

(iii) A unit of government or subdivision thereof that collects, transports, or disposes of solid waste within its political boundary when 4 members, as defined in paragraphs (i) and (ii) of this subdivision, cannot be found.

(k) "Solid waste management system" means a set of procedures that provides for the collection, transportation, separation, recycling, recovery, and disposal of solid waste.

(l) "Speculative accumulation" means the storage of material intended for recycling or reuse at a site for ~~for the following periods 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.

(i) Three years accumulated at the site of generation for low-hazard industrial waste, category 2 industrial by-product, category 3 industrial by-product, or category 4 industrial by-product

(ii) Three years stored at the site of beneficial reuse for a category 3 industrial by-product or category 4 industrial by-product.

(iii) Two years stored at the site of beneficial reuse for a category 2 industrial by-product.

(iv) One year stored at the site of generation or beneficial use for category 1 industrial by-products.

(m) "Standard industrial classification number" means the number assigned to an industry by the United States office of management and budget and contained in the standard industrial classification manual. The manual is adopted by reference in R 299.4126.

(n) "Statistically significant increase" means a verified increase in groundwater concentration for a given constituent for which statistical analysis is required in the approved hydrogeological monitoring plan that is inconsistent with background concentrations given chance expectations for the site as a whole.

(o) "Sugar beet residuals" mean lime, soil, weeds, beet parts, or any mixtures of these materials.

~~(pe)~~ "Sump" means a lined pit, manhole, or reservoir that serves to collect liquids drained from a leachate collection and removal system, secondary collection system, or leak detection system.

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~~(qe)~~ "Surface water" means a body of water that has its top surface exposed to the atmosphere and includes a flowing body, a pond, or a lake, except for drainageways and ponds that are used solely for wastewater conveyance, treatment, or control.

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~~(re)~~ "Synthetic liner" or "flexible membrane liner" means very low-permeability synthetic membrane liners or barriers that are used with a geotechnical engineering-related material as an integral part of a manmade project, structure, or system.

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~~(sf)~~ "Total inorganic nitrogen" means the sum of ammonia-nitrogen, nitrate-nitrogen, and nitrite-nitrogen.

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~~(se)~~ "TSCA" means the toxic substances control act, 15 U.S.C. §2601 et seq.

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~~(ut)~~ "Unmonitorable unit" means a landfill unit that is not a monitorable unit.

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

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~~(wv)~~ "Vertical expansion" means the landfilling of solid waste above the elevations indicated in the construction permit or in engineering plans approved for the landfill unit by the solid waste control agency before January 11, 1979. Increases in elevation approved by the director are not new disposal areas if the volume of waste to be disposed of is not expanded beyond the volume previously approved and if the expansion is in compliance with the act and these rules.

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

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(y) "Yard clippings" as defined in Section 11506(7) of the act do not include Christmas trees or other holiday decorations. Finished compost made from yard clippings is not yard clippings.

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R 299.4109 Generator/Broker/processor/End User Obligations

Rule 109. The storage, processing, or use of materials for beneficial use under this part shall be done in compliance with all of the following:

(a) The material shall not be speculatively accumulated as defined in R 299.4105(l).

(b) The material shall be used in compliance with the Act.

(c) If the material is used for agricultural or silvicultural purposes the person who sells the material to an end user shall develop a label, in the case of bagged use, or a direction sheet, in the case of bulk use, that describes how the material shall be used.

(d) Any authorizations for use that contain conditions or restrictions on use shall be passed from:

(i) The generator to the broker, processor, or end user.

(ii) The broker to the processor or end user.

(iii) The processor to the end user.

(e) The generator of the material shall be responsible for reporting to the department the volume of material generated each year and the volume of material used within each calendar year on a form provided by the department. The reports shall be due to the department by **October 31, each year for the materials used in the previous year **that runs from October 1 to September 30**.**

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(f) The end user shall use the material in compliance with the conditions/restrictions given to them by the generator, broker, or processor of the material.

(g) The storage and processing of materials for beneficial use under this part shall be done in a manner that does not cause a release that creates a "facility" as defined by part 201.

(h) Beneficial use does not include the use of the materials contained in R 299.4114(2) a, b, and c.

R 299.4110 "Other wastes regulated by statute" defined.

Rule 110. 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 landfill facility that is licensed under TSCA.

(c) Drilling muds, **drill cuttings**, land clearing debris, and other wastes associated with the exploration, development, or production of crude oil, or 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) Drilling muds, drill cuttings, land clearing debris, and other wastes that are associated with the drilling, development, operation, or plugging of mineral wells and that are regulated by the supervisor of mineral wells under part 625 of the act.

~~(e 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 R 299.4115.~~

~~(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.~~

~~(f e) Tires that are managed in compliance with part 169 of the act.~~

(g f) Dead animals from individual animal production operations that do not maintain more than 5,000 cubic yards of bulking agents identified in 1982 PA 239, Bodies of Dead Animals Act (BODA) from a source other than the farm, or an individual animal processing operation that, for composting purposes, does not maintain on site more than 5,000 cubic yards of bulking agents identified in BODA. Animals that are composted or disposed of under pursuant to 1982 PA 239, MCL Act No. 239 of the Public Acts of 1982, being §287.651 et seq. of the Michigan Compiled Laws.

(h g) Earth overburden, rock, lean ore, and ore tailings that are regulated under part 631, or part 632 of the act.

~~(i h) Septage waste which is regulated under part 117 of the act and which is disposed of in a land application unit.~~

~~(j i) The following waste that is regulated under part 31 of the act:~~

~~(i) Liquid waste that is managed in accordance with part 31 or is land applied or 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 **land applied or composted at the site of generation or at another site owned by the generator of the sludge and land applied** under a residuals management plan which is approved under part 31 of the act.

(k j) The following waste, at the point that it is regulated under part 55 of the act:

(i) Wood and stumps that are burned ~~under pursuant to~~ part 55 and part 515 of the act.

(ii) Medical waste that is burned in a unit that 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 at a unit as specified in this paragraph is not exempt from part 115 of the act and these rules.

(iii) Contaminated soil that is treated in a thermal treatment unit that is permitted under part 55 of the act, if the soil is contained at the treatment site so that the operation does not expose the soil to the atmosphere and the elements. Residues from the treatment shall be disposed of under a plan that is approved by the department.

(iv) Chipped tires, creosote railroad ties, and industrial waste that is burned as fuel in a boiler, industrial furnace, or power plant which is permitted under part 55 of the act, to burn the waste as fuel.

~~(k) Contaminated soil or other waste that is generated from the remediation of environmental contamination and that is allowed to be disposed of at the site of environmental contamination or at other property that is owned by the responsible party under a remedial action plan that is approved under part 201 or part 213 of the act.~~

~~(l) Dredging performed in compliance with Part 201 or Part 213 and the associated administrative rules, and approved by the department.~~

~~(m) Contaminated soil that is generated from the remediation of environmental contamination, that is allowed to be disposed of at the site of environmental contamination in compliance with part 111, part 213 or part 201, as applicable, and administrative rules promulgated thereunder.~~

~~(n l) Solid waste in open dumps which did not receive waste after October 9, 1991, and which receive final cover under pursuant to either of the following provisions:~~

~~(i) A remedial action plan for response activity that is approved by the department under part 201 of the act, if the approval specifically states that the response activity provides a sufficient level of control to constitute final cover.~~

~~(ii) A grant under part 191 or part 195 of the act.~~

(o) If processed for energy recovery and certified as provided by P.A. 295 of 2008, Section 41(4) [MCL 460.1041(4)], as creating renewable energy credits, advanced cleaner energy credits, or energy optimization credits, biomass that has a permit under Part 55 or biomass, industrial waste, solid waste, and electronic wastes converted in an Advanced Cleaner Energy System as defined by P.A. 295 of 2008, Section 3 [MCL 460.1003], or any materials used in the production of certifiable energy optimization credits provided:

(i) The material is not speculatively accumulated;

(ii) The storage and processing of the material occurs at the site of generation or use and does not cause a nuisance;

(iii) The material is stored in compliance with R 299.4130 or in a building; and

(iv) The storage and processing of the material does not cause a release that creates a "facility" as defined under part 201.

Deleted: Biomass that is burned for energy recovery by an electric provider as defined in P.A. 295 of 2008 that has an permit under Part 55 or biomass, industrial waste, solid waste, and electronic wastes that are used in a gasification facility as defined by P.A. 295 of 2008 to produce a synthesis gas to generate electricity for commercial use provided:

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

Rule 111. (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 299.4118 to characterize the material.

(b) Additional characteristics of the material applicable to its proposed use. **Wastes proposed for use in beneficially altering the structure of soil to improve the growth of crops shall be physically characterized in the context of its application to demonstrate how the target soils shall be beneficially altered, and to allow for the calculation of an agronomic rate for the application or applications.** 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.
- (x) **Chlorides.**
- (xi) **Sulfates.**
- (xii) Bicarbonates.
- (xiii) **Sodium.**
- (xiv) **Magnesium.**
- (xv) **Potassium.**
- (xvi) **Calcium.**

(c) All of the following information to characterize the soil types at the application area or areas:

- (i) Soil **texture type.**
- (ii) Soil pH.
- (iii) Lime index.
- (iv) Cation exchange capacity.
- (v) Proposed nutrient application rates.

(d) The name and address and written **documentation approval** of the titleholder of the land or lands **for permission for application to occur on his or her property.**

(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 shall 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 shall serve as an effective fertilizer or soil conditioner or serve another beneficial use and shall be applied to the soil at an agronomic rate, but shall not violate part 31 or part 55 of the act or an other state law,⁷ and shall not create a nuisance, **and will not result in a release that causes the creation of a "facility" as defined in part 201 of the act.**

~~(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 the conditions on a plan that are necessary to protect human health, **safety, welfare**, and the environment.

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R 299.4113. Coal ash used to reclaim, develop, or enhance land; conditions for approval.

Rule 113. (1) A person who seeks to use ash from the combustion of coal to reclaim, develop, or otherwise enhance land shall prepare a plan for such use for review and approval by the director. The plan shall describe how the proposed use will reclaim, develop, or enhance the land and shall do 1 of the following:

(a) Demonstrate that the ash is inert under R 299.4114 to R 299.4117.

(b) Demonstrate that site conditions are sufficient to prevent the migration of ash constituents in a manner that will violate the water quality performance standard of R 299.4306.

(c) Demonstrate that the plan is otherwise protective of human health and the environment.

(2) A plan that proposes the use of ash which meets the leaching criteria of R 299.4116 shall include all of the following information:

(a) Information that is required under R 299.4116.

(b) A demonstration that the ash will not adversely affect human health, **safety, welfare,** or the environment from all exposure routes other than groundwater.

(c) Topographic maps of the area to be reclaimed, developed, or otherwise enhanced. The maps shall be in compliance with R 299.4909. The area shall be in compliance with the location standards of R 299.4305.

(d) A closure plan that contains the information specified in R 299.4446.

(e) Authorization of the titleholder of the land approving the land use.

(f) Restrictions on postclosure use, including a restrictive covenant that is in compliance with the act.

(3) A plan that proposes the use of ash which does not meet the leaching criteria of R 299.4116 shall include all of the following:

(a) A hydrogeological report which is in compliance with R 299.4904 and which does any of the following:

(i) Verifies the presence of a natural soil barrier that is in compliance with R 299.4912.

(ii) Demonstrates that hazardous substances will be attenuated before reaching the saturated zone.

(iii) Demonstrates that the water quality performance standard of R 299.4306 will otherwise be met.

(b) Engineering plans and an engineering report that are prepared and sealed by a registered professional engineer.

(c) The information specified by subrule (2) of this rule.

(4) The director shall approve a plan for using ash to reclaim, develop, or enhance land if he or she determines that reclamation ~~under in accordance with~~ the plan will satisfy all of the following provisions:

(a) The requirements of the act and this rule.

(b) Other state law.

(c) Will not create a nuisance **or result in release that causes the creation of a facility as defined in part 201 of the act.**

(5) The director shall approve or deny a plan submitted under this rule within 120 days of receiving a plan containing the information specified in subrule (2) or (3) of this rule. The director shall impose any conditions on a plan that are necessary to protect human health and the environment.

R 299.4114 Inert materials.

Rule 114. (1) The use of inert material on land does not require a construction permit or operating license under the act.

(2) Except as specified in subrule (3) of this rule, all of the following are inert materials:

(a) Rock.

(b) Trees, stumps, and other land clearing debris that is buried on the site of generation, or other location approved by the landowner, if all of the following conditions are met:

- (i) The burial is not in a floodplain or wetland.
- (ii) The debris is buried not less than 4 feet above the level of the groundwater.
- (iii) The burial does not violate other federal, state, or local law.
- (iv) The burial does not create a nuisance.
- (v) The amount of debris is not more than 1 acre in size and is not more than 20 feet in thickness depth.

(c) Excavated soil, except as provided in subrule (3) of this rule.

(d) Construction brick, masonry, **asphalt and concrete** pavement, and broken concrete that is reused for fill, riprap, slope stabilization, or other construction if all of the following conditions are met:

(i) The use does not violate part 301 or part 303 of the act or subrule (3) of this rule.

(ii) The material does not include exposed reinforcing bars or other construction and demolition waste.

(iii) The owner or operator of a site that is intended to receive more than 1,000 cubic yards of construction brick, masonry, pavement and broken concrete notifies the director, **before disposal**, or his or her designee by submitting a form that is provided by the director.

(e) Chipped tires used in the construction and operation of a sanitary landfill, if approved by the department.

(f) Portland cement clinker produced by a cement kiln using solid waste as a fuel or feed stock, but not including cement kiln dust that is generated as a waste in the process.

(g) Low-hazard industrial waste that, based on representative sampling, is in compliance with the inertness criteria contained in R 299.4115, provided:

(i) The generator does all of the following:

(Aa) Notifies the director of the reuse, on a form provided by the department

(Bb) Performs a waste characterization based on representative sampling at least annually or more often if there is a change in the waste generating process that may affect the inertness of the low-hazard waste.

(Cc) Maintains characterization records for not less than 3 years.

(Dd) Reports by October 31, the volume of material used from October 1 to September 30 of the previous year on a form developed by the department.

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(E) Certifies to the broker/processor/end user, on a yearly basis or when the process changes, that the material he generated meets the inert criteria contained in R 299.4115.

(ii) The broker notifies the processor or end user on an annual basis that they have the yearly certifications from all the generators that the materials meet the inert criteria contained in R 299.4115.

(h) **Green sands from aluminum, iron, or steel foundries that are mixed with yard waste compost or other materials at a maximum of fifty percent, by weight, to produce and engineered soil, provided:**

(i) The generator of the green sand notifies the department of the use,

(ii) The green sands are not speculatively accumulated at either the site of generation or use.

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(iii) The green sands are stored in compliance with R 299.4129 at the site of generation and the site of use.

~~Low-hazard industrial waste which is used as aggregate, road, or building material and which in ultimate use will be stabilized or bonded by cement, limes, or asphalt, if the waste is not stored in a manner constituting speculative accumulation before use.~~

(i) Other materials that are designated as inert for uses approved by the director based on a **petition that is submitted under R 299.4118. Any owner or operator having specific**

approval that was in place over five years before the effective date of these Rules, with the exception of site specific designations, has 120 days to request a new approval or dispose of the material as waste into a licensed disposal facility unless the owner or operator otherwise satisfies the requirement for an alternative use or reuse as provided in Part 1 of these Rules. If an owner or operator has requested new approval on a timely basis, the authorization for continued use pursuant to the previous specific approval shall continue until such time that the request is deemed administratively incomplete by the Director, after providing reasonable opportunity for the owner or operator to address any deficiencies in its request, or until such time that the request, if deemed administratively complete, is denied, conditionally approved or approved by the Director. This savings provision does not affect the director's right to revoke the previous approval. If the request is deemed administratively incomplete, after reasonable opportunity was provided to address any deficiencies in a request, denied, or conditionally approved in a manner that the owner or operator does not accept, the owner of operator will have 120 days after this decision to dispose of the material as waste into a licensed disposal facility.

either of the following:

~~(ii) A petition that is submitted under R 299.4118.~~

~~(iii) An approval by the director before the effective date of these rules.~~

(3) Materials that are specified in subrule (2)(c) and (d) of this rule are not inert materials if they are contaminated by hazardous substances in concentrations sufficient to cause environmental contamination. To determine whether a material is contaminated, a person may do either of the following:

(a) Test the material ~~under in accordance with~~ the test methods listed in R 299.4118. A material shall not be considered contaminated if the concentration of hazardous substances in the material is less than the concentrations listed for inert materials in R 299.4115.

(b) Apply knowledge of the material. Materials that are specified in subrule (2)(c) and (d) of this rule are not contaminated unless they have been contaminated during use, such as by chemical spills, application of paint or coatings, or by changes in the material during use.

R 299.4115 Criteria for designating inert materials appropriate for general reuse.

Rule 115. (1) A person may petition the director to designate a solid waste as an inert material that is appropriate for general reuse.

(2) The director shall approve a petition that is submitted ~~under pursuant to~~ this rule if the petition demonstrates both of the following:

(a) The material will not be used in a manner that causes nuisance conditions.

(b) The concentration of **each** hazardous substance in the material is below **any** one of the following:

(i) **The totals concentration of the hazardous substance is below the background concentration developed by the Department as the statewide default background level for that hazardous substance under Part 201 of the Act.**

(ii) **The totals concentration of the hazardous substance is below the concentration of the hazardous substance developed as site specific background under Part 201 of the Act.**

(iii) **The totals concentration of the hazardous substance is below** the method detection limit for **that hazardous** substance.

(iv) **The totals concentration of the hazardous substance is below the most restrictive Part 201 generic residential cleanup criteria for soils, or if the totals concentration exceeds only the residential cleanup criteria for soil that are protective of groundwater for any hazardous substance, the leachable concentration of the hazardous substance is below the most restrictive Part 201 generic residential cleanup criteria for**

groundwater. ~~Type B criteria for soil specified in R 299.5711. The director shall waive the type B criteria based on inhalation hazards if the petition demonstrates that the waste is not of a respirable particle size and is not likely to be reduced to such size under the conditions that the waste may be exposed to.~~

(3) A petition to designate a material as inert for general reuse shall contain the information that is specified in R 299.4118.

R 299.4116 Criteria for Designating inert materials appropriate for reuse at a specific location; criteria.

Rule 116. (1) A person may petition the director to designate a solid waste as an inert material that is appropriate for reuse at a specific property.

(2) The director shall approve a petition that is submitted ~~under pursuant to~~ this rule if the petition **contains information sufficient to make a demonstration and the petition** demonstrates the following:

(a) The material ~~is does not pose~~ a threat to **indoor air, surface water, ambient air for an infinite source, or groundwater** as specified in subrule (3) of this rule, **or that any one or more of these pathways is not relevant.**

(b) The material shall not **contain hazardous substances above the allowable human direct contact criteria developed under part 201 of the act unless it is covered by an impervious surface, 6 inches of clean soil that can support vegetation, or in another manner approved by the director and a restrictive covenant is placed on the area containing the material.** The owner of the property shall be responsible for maintaining the cover or engineering controls approved by the director.

(c) **The material will not be used in a manner that causes nuisance conditions.** ~~otherwise result in an unacceptable risk, as defined in R 299.5711. If the concentration of hazardous substances in the material exceeds the levels specified in R 299.5711. The applicant shall demonstrate that the conditions of reuse on the specific property shall prohibit exposures that would result in an unacceptable risk. To do so, the applicant shall provide the applicable information specified in R 299.5717 and R 299.5719.~~

(3) A solid waste ~~is shall be considered to not pose~~ a threat to groundwater if the concentration of each hazardous substance in the leachate of the waste is less than 1 of the following:

(a) ~~The criteria in R 299.4115(2).~~ The leachate concentration generated by background soil.

(b) ~~The method detection limit for the substance in question.~~

(c) All of the following concentrations:

(i) ~~For a carcinogen acting by a threshold or a nonthreshold mechanism, the concentration that represents an increased cancer risk of 1 in 1,000,000 calculated according to the procedures in R 299.5723.~~

(ii) ~~For a hazardous substance that is not a carcinogen, a genotoxic teratogen, or a germ line mutagen, the concentration that represents the human life cycle safe concentration calculated according to the procedures in R 299.5725.~~

(iii) ~~For a hazardous substance that has a secondary maximum contaminant level, that level.~~

(iv) ~~For a hazardous substance that, singly or in combination with other hazardous substances present at the site, imparts adverse aesthetic characteristics to groundwater, the concentration that is documented as the taste or odor threshold or the concentration below which appearance or other aesthetic characteristics are not adversely affected. The criteria of this subdivision shall apply only when the level required by this subdivision is less than the level required by subdivision (a) or (b) of this subrule. A taste or odor threshold concentration or a~~

~~concentration that adversely affects appearance shall be determined according to methods approved by the United States environmental protection agency.~~

~~(b d) A concentration that is otherwise authorized **under pursuant to** the provisions of act 245 **part 31 of the act.**~~

~~(c e) **Other concentrations approved on a case-by-case basis by the director that considers the hydrogeological conditions of the site and would be protective of public health, safety, welfare, and the environment.**~~

~~(4) A petition to designate a material as inert at a specific location shall contain the information specified in R 299.4118.~~

R 299.4117 ~~Criteria for Designating inert materials appropriate for specific reuse instead of virgin material; **criteria.**~~

Rule 117. (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 ~~under pursuant to~~ this rule if the petition demonstrates any of the following:

(a) The material meets the criteria of R 299.4115(2).

(b) The material ~~is does not pose~~ a threat to groundwater, as specified in R 299.4116, and the conditions of reuse shall prohibit exposures that result in unacceptable risks as defined in R 299.5711.

(c) The material ~~is does not pose~~ a greater hazard to ~~public human~~ health, **safety, welfare,** 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, shall 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 299.4118(2) 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, **unless the director has approved an alternate amount, in writing, before conducting the pilot project.**

(b) The person notifies the director or his or her designee before **conducting the pilot project 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 **done in compliance with part 2 31, 55, 91, and 303 of the act and has not caused a release that created a "facility" as defined in part 201 of the act.**

(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 299.4118(2).~~
 - (iii) The volume of waste to be used.
 - (iv) The nature of the reuse, and a description of the 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 (2 4) of this rule **and will** which ensure ~~representative sampling of that the final product has been representatively sampled.~~
 - (vi) The proposed completion date.
- (b) The director determines that the project ~~is does not pose~~ an unacceptable risk of environmental contamination.

(6) A person who conducts a pilot project ~~under 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. **In addition, a person as part of submitting a pilot project report may submit a petition to reuse the material in accordance with this rule, which the Director or his or her designee shall review for approval in accordance with R 299.4126.**

R 299.4118 Petitions to classify wastes.

Rule 118. (1) A person may petition the director to designate a solid waste as an inert material, compostable material, **industrial by-product**, or low-hazard ~~industrial~~ waste.

(2) A petition to classify a waste shall include all of the following information ~~on a form provided by the department:~~

- (a) The name and site address of the **location** ~~facility~~ that generates the material.
- (b) The ~~facility~~ contact person and phone number **of the location that generates the material.**
- (c) A 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) The maximum and average amounts of material generated monthly and annually.
 - (iii) 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.
 - (iv) A description of the current disposal location for the material, if any.
 - (v) The proposed use or disposal method for the material.
- (d) **Total concentrations of a hazardous substance as that term is defined in section 324.20101(t) of the act** ~~For uses where the waste may present an inhalation or direct contact hazard, a description of the total concentration of each of the following chemical constituents that may be present in the material in light of the process used. The department recognizes the parameters listed below to be generally sufficient to characterize the following listed waste streams. However, a generator shall be liable under section 20126 of the act if the release of any hazardous substance results in the creation of a facility. The following shall apply:~~
 - (i) **For flue gas desulfurization sludge, coal ash, wood ash, cement kiln dust, and lime kiln dust, the metals specified in table 101 of R 229.4123.** ~~Any hazardous constituents listed in 40 C.F.R. part 258, appendix II, that may be present in the material, in light of the process used. The list contained in 40 C.F.R. part 258, appendix II, is adopted by reference in R 299.4134.~~

(ii) For foundry sands, the metals table 101 of R 229.4123, the volatile organic compounds table 102 specified in R 229.4124, and the phenolic compounds, table 103 specified in R 229.4125 if a phenolic resin is used in the process. Any constituents which are not listed in 40 C.F.R. part 258, appendix II, but which have had a primary or secondary drinking water standard established under 40 C.F.R. parts 141 and 143, including all of the following:

- (A) Total chloride.
- (B) Total nitrogen.
- (C) Total iron.
- (D) Total manganese.
- (E) Total sulfates.

(iii) For paper mill sludge, the metals from table 101 contained in R 299.4123 and the volatile organic compounds from table 102 contained in R 299.4124. The following constituents, based on health advisories issued by the United States environmental protection agency for these compounds:

- (A) Total molybdenum.
- (B) Total sodium.

(iv) Any indicator parameters that may be useful in establishing a groundwater monitoring program for the waste.

(e) For hazardous substances constituents that are present, in total, in the material at concentrations above either 20 times the most restrictive residential groundwater protection criteria developed under part 201 of the act potential levels of concern, a determination of the leaching potential of the constituents using any of the following:

(i) The toxicity characteristic leaching procedure, being EPA test method 1311 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.

(ii) The synthetic precipitation leaching procedure, being EPA test method 1312 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.

(iii) The multiple extraction procedure, being EPA test method 1320 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.

(iv) Other test methods or models which are approved by the department and which more accurately simulate conditions at the site.

(f) A description of the techniques that are used to sample and analyze the waste, including all of the following:

(i) The name, address, and contact person of the location facility that sampled and analyzed the material.

(ii) A description of the sampling plan used to ensure that the waste has been representatively sampled samples were representative of the material. The description shall include sample locations, the number of samples taken, and sampling methods used. Sampling plans shall be consistent with those 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.

(iii) A description of the sample preservation method and the type of container used to collect samples.

(iv) A description of the specific analytical methods used for each constituent and the method detection limits achieved. Analytical methods shall be appropriate methods 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,

or other methods approved by the director and shall achieve practical quantitation limits approved by the director or his or her designee.

(v) Chain of custody procedures.

(3) ~~After receiving a petition under this rule, the director shall do both of the following:~~

~~(a) Within 60 days of receiving the petition, determine whether the petition contains all of the information required by this rule and request any additional information that is necessary to evaluate the petition.~~

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

(34) Material that is classified by the director based on a petition under this rule shall be retested to confirm the classification not less than annually using procedures specified in this rule. The test results shall be submitted to the director, **upon request**. The director shall specify a more frequent schedule for testing if the characteristics of the material may vary significantly.

~~(4 5)~~ If a hazardous substance is reported to be present in **1 or more** a samples at concentrations above the waste classification criteria of these rules, a person may demonstrate that the data are not statistically significant **with regard to the overall characteristics of the material**, using 1 of the methods specified in R 299.4908.

~~(6) 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.~~

R 299.4119 The approval of site and source-separated materials not listed in the act.

Rule 119. (1) ~~Except as specified in subrule (2) of this rule, t~~The director shall **designate use of** ~~approve~~ materials that are not specified in the act as site or source separated material if the person who seeks the **designation exemption** demonstrates that the materials shall not violate subrule (2) of this rule and that they can be converted into raw materials or new products by any of the following means:

(a) By being returned to the original process from which they were generated.

(b) By being used or reused as ingredients in an industrial process to make a product.

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

~~(2) For purposes of the act and these rules, w~~ Waste materials shall not be considered site or source separated for the purpose of conversion into raw materials or new products if the materials are any of the following:

(a) Stored in a manner constituting speculative accumulation.

(b) Mixed with other material so that the waste materials cannot be converted into raw materials or new products without processing to remove the other material.

(c) Applied to or placed on the land, or used to produce products that are placed on the land, in a manner that constitutes disposal, unless the materials are ~~any of the following:~~

~~(i) Yard clippings that are separated for conversion into compost under R 299.4120.~~

~~(iii) Waste other than yard clippings approved for use as compost under R 299.4121.~~

~~(iiii) N~~ondetrimental materials that are applied to the land ~~under in accordance with a plan approved under R 299.4111.~~

~~(ii v)~~ Inert materials that are specified in R 299.4114 **or designated under R 299.4115 to R 299.4117.**

~~(iii v)~~ **Low-hazard waste that is used as aggregate, road, or building material and that in ultimate use shall be stabilized or bonded by cement, lime, or asphalt.**

~~(iv v)~~ Other materials **designated** ~~approved~~ ~~under~~ pursuant to this rule.

~~(d) Violate parts 201, 31, or 55 of the act Injurious to human health or the environment or materials which will create a nuisance~~ **Transported, stored, processed, or used, in a manner that violates this act.**

(3) All of the following shall be considered source-separated material if the criteria of subrule (2) of this rule are met:

(a) Utility poles or pole segments reused as poles, posts, or similar uses.

(b) Railroad ties reused in landscaping, embankments, or similar uses.

(c) Any of the following, when used to stabilize, solidify, or otherwise treat waste at a facility licensed under part 111 or part 115 of the act; **when used to remediate hazardous substances at a facility as defined by Section 20101(o) of the act, where response activity is undertaken consistent with Part 201 or Part 213; or when used to perform a corrective action at a Part 111 facility.**

(i) Cement kiln dust.

(ii) Lime kiln dust.

(iii) **Water softening limes from a community water supply system that treats water for domestic use.**

(iv) Sugar beet limes.

(v) Coal flyash fly ash.

(vi) Wood ash.

(vii) Flue gas desulfurization sludge.

(viii) Synthetic gypsum.

(ix) Any combination of fly ash primarily from the combustion of coal with secondary fuels from tires, biomass, and petroleum coke.

(xi) Other material approved by the director.

(d) **Scrap wood, railroad ties, and chipped or whole tires that are reused as fuel in an industrial boiler, power plant, or furnace under part 55 of the act, reused to produce new wood products, or reused for other uses approved by the director.**

(e) **Gypsum drywall meeting any of the following conditions:**

(i) It is less than ¼ inch in diameter and is used for land application at agronomic rates.

(ii) It is used as a compost additive that makes up less than 2.5% of the compost mass.

(iii) It is generated from the production of wallboard and is returned to the production process; or used in another manner approved by the director.

(f) **Lime residuals from the softening of water from a community water supply system when land applied at agronomic rates, within 30 days of delivery to the application site.**

(g) Industrial by-products used in compliance with R 299.4120a through R 299.4120d, except for industrial by-products used for daily cover under Rule 120b(1)(e).

~~R 299.4120 Yard clippings separated for use as compost.~~

~~Rule 120. (1) Yard clippings shall be considered to be site or source-separated for the purpose conversion into compost if all of the following provisions apply to the yard clippings:~~

~~(a) The yard clippings are separated from other solid waste, and maintained separately until used as compost.~~

~~(b) The yard clippings are composted at the site of generation or transported to an off-site composting facility where conversion to compost occurs, except as specified in subrule (2) of this rule.~~

~~(c) The yard clippings are not stored in a manner constituting speculative accumulation, as specified in subrules (3) and (4) of this rule.~~

~~(d) The yard clippings are managed as a product or resource in a manner that does not create a nuisance.~~

~~_____ (2) Yard clippings may be composted at a location other than a composting facility in the following circumstances:~~

~~_____ (a) The disposal occurs at the site of generation.~~

~~_____ (b) The disposal occurs as a part of normal farming operations. For purposes of this rule, the use of yard clippings by persons on their own property for their own use on that property as part of agricultural, horticultural, or silvicultural operations is considered to be normal farming operations.~~

~~_____ (c) The disposal occurs at a location that contains limited volumes of yard clippings and where conversion to compost may occur under natural decay without creating a nuisance.~~

~~_____ (3) Yard clippings accumulated at a transfer facility or staging area that is not designed for composting shall not be stored in a manner that constitutes speculative accumulation. The owner or operator of the transfer facility or staging area is responsible for maintaining the records necessary to demonstrate that speculative accumulation is not occurring.~~

~~_____ (4) Yard clippings at a composting facility are subject to the definition of speculative accumulation starting in the third year after the yard clippings are received. The owner or operator of the composting facility is responsible for maintaining the records necessary to demonstrate that speculative accumulation of compost is not occurring.~~

~~_____ (5) Deleterious material removed from yard clippings or from compost produced from yard clippings may be landfilled as solid waste and is not subject to the landfill prohibition in section 11521 of the act.~~

R 299.4120a Self-implementing reuse of solid waste; general conditions.

Rule 120a. (1) A person may beneficially reuse an industrial by-product in compliance with this part and does not require written authorization from the department provided the reuse complies with R 299.4120a(2) to R 299.4120d.

(2) A person beneficially reusing an industrial by-product shall comply with all of the following:

(a) The storage, processing, transporting, incinerating or use of an industrial by-product must be done in a manner that does not violate parts 31, 55, 91, and 303 of the act and does not cause a release that creates a "facility" as defined in part 201 of the act.

(b) Vehicles or containers used to transport industrial by-products shall be durable and leak-proof. An industrial by-product shall be covered during transportation so as to prevent littering and spillage.

(c) Before beneficial reuse of an industrial by-product each generator of the industrial by-product shall submit an initial certification to the department that contains the following information:

(i) Name, phone number, and address of the generator.

(ii) A description of each industrial by-product intended for beneficial use, a description of the process that generated the industrial by-product or a material safety data sheet, and an estimate of the volume that could be used on an annual basis.

(iii) Certification by each generator that it has representatively sampled its industrial by-product for all hazardous substances, as that term is defined in Section 20101(t) of the act, that could be present in its industrial by-product, unless it is a listed low-hazard waste being used as a category 2 industrial by-product.

(iv) Certification by the owner of the site of reuse that the information on the form is true and accurate, and that the conditions of R 299.4120a(2) to R 299.4120d will be met.

(v) Certification by each generator that the information on the form is true and accurate, and that the conditions of R 299.4120a(2) to R 299.4120c will be met.

(vi) For items registered as fertilizers, soil conditioners, specialty fertilizers, or soil blends under part 85 of the act, a suggested list of uses for application and suggested application rates.

(d) By **October 31** of each year, each generator shall submit a report to the department that contains the following information for the previous year **that runs from October 1 to September 30**:

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(i) Name, address, phone number, and contact person of the generator.

(ii) Categories of industrial by-products generated.

(iii) Volumes of industrial by-products sent off-site.

(e) To be considered beneficial, the use of industrial by-products shall meet applicable structural and physical specifications and generally accepted engineering practices for the use except for Category 4 industrial by-products.

(f) Each generator shall representatively sample its industrial by-product for all hazardous substances identified in Section 20101 of part 201, that could be present in its industrial by-product, in compliance with 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, on an annual basis, to confirm the classification of its industrial by-product, unless it is a listed low-hazard waste being used as a category 2 industrial by-product. **A generator may petition the department to reduce the sampling frequency or parameter list provided they can demonstrate that their industrial by-product is of a consistent nature.**

(g) Department staff may conduct inspections at both the site of generation and the site of reuse and may collect samples in order to verify compliance with these rules.

R 299.4120b Description of beneficial uses.

Rule 120b. (1) A category 1 industrial by-product may be utilized for the following beneficial uses:

(a) As a raw material for manufacturing a product that is not applied to or placed on the ground. The industrial by-products shall be used to produce products in which the measurable leaching, emissions, or decomposition characteristics of the manufactured product do not present a threat of harm to public health, safety, welfare, or the environment, provided the following conditions are met;

(i) The broker and/or producer certify to the department that they will comply with the conditions contained in this part.

(ii) The broker and/or the producer report to the department **by October 31**, the volume of material used **between October 1 and September 30 of the previous year**, on a form provided by the department.

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(b) As an agent for physical or chemical stabilization, or solidification or other treatment of solid waste at the site of remediation, at a landfill licensed under part 111 or part 115 of the act, or at the site of waste generation, before disposing the waste into a licensed landfill, provided all of the following conditions are met:

(i) The solidified waste shall pass the paint filter test before disposal.

(ii) The solidification shall be done in 1 of the following:

(A) In a tank.

(B) In a container.

(C) In a building.

(D) In compliance with R 299.4130.

(c) Burned as fuel in a boiler, industrial furnace, or power plant that is permitted under part 55 of the act, to burn the waste as fuel.

(d) Used for leachate system collection protection layer and/or gas collection layer at licensed landfills. Other uses shall be in compliance with applicable rules. A landfill

shall produce yearly reports indicating volumes used, generators, average working face, and number of days of operation. The reports are due October 31 for the reporting period of October 1 to September 30 of the previous year.

(e) Used for daily cover at licensed landfills provided that it can be demonstrated that the material is able to control disease vectors, be an effective fire blanket, and control blowing. The material shall not be placed more than 6 inches thick. Cement kiln dust, lime kiln dust, and fly ash from coal shall be conditioned with water to control nuisance dust. A landfill shall produce yearly reports indicating volumes used, generators, average working face, and number of days of operation. . The reports are due October 31 for the reporting period of October 1 to September 30 of the previous year.

(2) A category 2 industrial by-product may be utilized for the following beneficial uses provided the broker and/or processor notify the department that they will comply with the conditions contained in this part and they report to the department, on a yearly basis, the amount of material transferred or used, on a form provided by the department.

(a) Any of the uses contained in R 299.4120b(1)(a) to (e).

(b) Used to produce a product that is bonded by lime, cement, or asphalt.

(c) Land applied for beneficial use under one of the following:

(i) Land applied uniformly, within 48 hours, unless an alternate timeframe is approved by the director, at an agronomic rate provided such rate is less than **30** dry tons per acre per year, if the industrial by-product is incorporated into the soil, and the conditions of R 299.4120d are met. Land application at higher rates will be considered subject to a demonstration approved by the department.

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(ii) Land applied uniformly at an agronomic rate provided the industrial by-product is surface applied, the rate is less than **6** dry tons per acre per year, and the conditions of R 299.4120d are met. Land application at higher rates will be considered subject to a demonstration approved by the department.

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(d) Coal ash, lime kiln dust, cement kiln dust, or other industrial by-products approved by the department meeting the requirements of ASTM C618 or other appropriate standards used as a soil stabilization material or pavement stabilization material for improving the structural bearing capacity of soils under building pads, paved surfaces, parking lots, and roads. The by-products shall be used in compliance with the following:

(i) The placement of the supplementary cementitious material may extend into the unpaved road shoulder but not more than 5 feet beyond the pavement unless required for structural integrity at the determination of a registered professional engineer.

(ii) The use of supplementary cementitious material shall not exceed 15% by dry mass of the stabilized soil or pavement.

(iii) Any area where industrial by-products are not directly beneath the pavement structure shall be sloped to prevent ponding of water, covered with topsoil and seeded as soon after placement as is practical or covered with a minimum of 6 inches of gravel or stone.

(iv) The industrial by-product shall not be placed within 5 feet of the seasonal high groundwater table.

(e) Confined fill used for base course, subbase or subgrade fill for the construction of portland cement concrete or asphaltic concrete paved lots, driveways, roads, and highways that consists of granular materials. The by-products shall be used in compliance with the following:

(i) The placement of the by-product may not extend more than 5 feet beyond the paved area unless required for structural integrity at the determination of a registered professional engineer.

(ii) Any area where industrial by-products are not directly beneath the pavement structure shall be sloped to prevent ponding of water, covered with topsoil, and seeded as soon after placement as is practical, or covered with a minimum of 6 inches of gravel or stone.

(iii) The use shall not exceed 1,000 cubic yards per acre that is covered by concrete or asphalt, unless the director has approved an alternate volume, on a case-by-case basis, that considers the conditions of the site and would be protective of public health, safety, welfare, and the environment. .

(iv) The industrial by-product shall not be placed within 5 feet of the seasonal high groundwater table.

(3) A category 3 industrial by-product may be utilized for the following beneficial uses:

(a) Any of the uses contained in R 299.4120b(1)(a) to (e) and R 299.4120b(2)(b) to (e).

(b) Land applied for beneficial use under one of the following:

(i) Land application at an agronomic rate provided such rate is less than **40** dry tons per acre per year, if the industrial by-product is incorporated into the soil, within 30 days, and the conditions of R 299.4120d are met. Land application at higher rates will be considered subject to a demonstration approved by the department.

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(ii) Land application at an agronomic rate provided if the industrial by-product is surface applied, the rate is less than **8** dry tons per acre per year, within 30 days, and provided the conditions of R 299.4120d are met. Land application at higher rates will be considered subject to a demonstration approved by the department.

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(c) Confined fill, commercial or industrial building subbase, paved lot base or subbase, paved roadway base or subbase, tank, vault, or tunnel or mine abandonment, transportation facility embankment, or other similar uses approved by the director. A by-product used according to this subrule shall comply with the following:

(i) The industrial by-product shall not be placed within 5 feet of the seasonally high groundwater table.

(ii) The maximum amount of an industrial by-product used for any project is less than 5,000 cubic yards, unless the director has approved an alternate volume, on a case-by-case basis, that considers the conditions of the site and would be protective of public health, safety, welfare, and the environment..

(iii) The project for which the industrial by-product is used shall be completed within 2 years or less, unless an alternate timeframe has been approved by the director, in writing, on a case-by-case basis, that considers the conditions of the site and would be protective of public health, safety, welfare, and the environment..

(d) Granular materials when used for unconfined fill used for a surface material that does not exceed a 6-inch thickness and applied more than 250 dry tons per acre, or used for utility trench pipe bedding and backfill applied less than 0.5 dry tons per linear foot of trench.

(e) Cold-weather road abrasive applied to highways, municipal and rural roads at a rate not to exceed 0.5 dry tons per lane mile.

(4) A category 4 industrial by-product may be utilized for any use determined by the generator.

R 299.4120c Storage.

Rule 120c. (1) A person storing an industrial by-product at the site of generation or at the site of reuse shall comply with the following:

(a) Unless otherwise approved by the director, the storage of a category 1 industrial by-product shall be in compliance with R 299.4130 or within the active portion of a licensed landfill.

(b) Unless otherwise approved by the director on a case-by-case basis, that considers the conditions of the site and would be protective of public health, safety, welfare, and the environment., the storage of a category 2 industrial by-product shall be done in compliance with R 299.4130, done on the liner within the active portion of a licensed landfill, or done in compliance with the following:

(i) A maximum of 5,000 cubic yards, unless an alternate volume is approved by the director before placement, may be placed on the ground at the site of beneficial reuse.

(ii) The storage shall not be within 5 feet of the seasonal high groundwater table, unless an alternate isolation distance is approved by the director.

(iii) The storage shall maintain 1 of the following isolation distances to surface water, unless an alternate distance is approved by the director:

(A) 1,000 feet.

(B) 250 feet if the facility has a storm water permit issued under part 31 of the act.

(iv) Verification sampling done in compliance with department procedures shall be conducted, if the storage exceeds 10 days, after all the industrial by-products are removed to verify that the storage has not caused a release that created a "facility" as defined in Part 201 of the act.

(c) A category 3 industrial by-product may be stored at the site of beneficial reuse provided the storage does not violate parts 31, 55, 91, and 303 of the act, and does not cause a release that creates a "facility" as defined in Part 201 of the act.

(2) An industrial by-product shall not be stored at a site of generation or reuse in a manner constituting speculative accumulation. The generator shall maintain written records to demonstrate compliance with this requirement at the site of generation.

R 299.4120d Land application.

Rule 120d. Land application of a category 2, 3, or 4 industrial by-product shall comply with the following:

(1) An industrial by-product that contains free liquids shall not be applied to the ground if it is frozen or covered with snow unless otherwise approved by the director.

(2) An industrial by-product that contains free liquids shall not be surface applied to a slope that exceeds 6% or injected into a slope that exceeds a 12% grade unless otherwise approved by the director.

(3) Except where specifically applied to increase the water retention capacity of porous soils or to serve as a soil stabilization agent, an industrial by-product shall not be applied to the land in a manner that adversely restricts soil permeability or causes ponding, pooling, or runoff in the area.

(4) An industrial by-product shall not be applied to a site known to be previously used for the land application of a biosolid, septage, waste, or wastewater from any business unless approved by the director.

(5) The following isolation distances shall be maintained for land application of category 2 industrial by-products:

	Application methodology	
	Distance in feet	
	Surface	Subsurface
Municipal water supply	2,000	2,000
Domestic wells	150	150

Homes and commercial buildings	50	25
Public roads and property lines	25	0
Surface water	150	50

(6) The following isolation distances shall be maintained for land application of category 3 or 4 industrial by-products:

	Application methodology	
	Distance in feet	
	Surface	Subsurface
Municipal water supply	1,000	1,000
Domestic wells	50	50
Homes and commercial buildings	50	25
Public roads and property lines	25	0
Surface water	150	50

(7) An industrial by-product shall not be land applied unless the seasonally high groundwater table is at least 30 inches below the surface of the soil at the time of application unless otherwise approved by the director.

(8) The industrial by-product shall be applied to soils in a uniform manner to ensure accurate and even distribution.

(9) The generator of an industrial by-product shall provide to each person using the industrial by-product an information sheet that details all applicable requirements related to land application of the industrial by-product.

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

~~Rule 121. (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 299.4118. 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 of a dried compost that passes through a 4.0-millimeter screen. The foreign matter 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 commercial 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 299.4121a Applicability of composting requirements

Rule 121a. (1) Composting of yard clippings shall be done in compliance with Section 11521 of the act.

(2) Composting of yard clippings mixed with class 1 or class 2 compostable materials shall be done in compliance with Section 11521 of the act and with this part.

(3) Composting of class 1 compostable material shall be done at one of the following:

(a) A class 1 composting facility.

(b) A registered yard clippings composting facility if the total volume of equally distributed class 1 compostable material does not exceed 5% of the total volume of yard clippings on site.

(c) A solid waste processing facility.

(4) Class 1 compostable material shall be considered to be site or source-separated for the purpose of conversion into compost if the class 1 compostable material is composted at a class 1 composting facility.

(5) Composting of class 2 compostable material shall be done at a class 2 composting facility or a solid waste processing facility. Class 2 compostable material shall be considered to be site or source-separated for the purpose of conversion into compost if the class 2 compostable material is composted at a class 2 composting facility.

(6) Composting of dead animals by an animal production operation or an animal processing operation using bulking agents as defined in the Bodies Of Dead Animals Act, is not subject to this part except under the following conditions:

(a) The animal production operation maintains more than 5,000 cubic yards of bulking agents from a source other than the farm

(b) The animal processing operation, for composting purposes, maintains on site more than 5,000 cubic yards of bulking agents identified in the Bodies of Dead Animals Act.

(c) The facility manages dead animals from more than one animal production operation or animal processing operation

(7) Composting of class 1 compostable material on a farm is not subject to this part if it is done in accordance with generally accepted agricultural and management practices under the Michigan right to farm act, 1981 PA 93, MCL 286.471 to 286.474, and if 1 or more of the following apply:

(a) Only yard clippings, class 1 compostable material, organic waste generated in the production of livestock and poultry or dead animals managed under the bodies of dead animals act, or a mixture of these materials generated on the farm are composted.

(b) There are not more than 5,000 cubic yards of class 1 compostable material or a combination of class 1 compostable material and yard clippings on the farm.

(c) If there are more than 5,000 cubic yards of class 1 material or a combination of class 1 compostable material and yard clippings on the farm at any time, all of the following requirements are met:

(i) The farm operation accepts yard clippings or class 1 compostable material generated at a location other than the farm only to assist in management of waste material generated by the farm operation.

(ii) The farm operation does not accept yard clippings or class 1 compostable material generated at a location other than the farm for monetary or other valuable consideration.

(iii) The owner or operator of the farm registers with the department of agriculture on a form provided by the department of agriculture and certifies that the farm operation meets and will continue to meet the requirements of subrules (i) and (ii).

R 299.4121b Class 1 composting facility location restrictions

Rule 121b. (1) If a class 1 composting facility is in operation on the effective date of this rule, the management and storage of class 1 compostable material, compost, and residuals shall not expand from its location on that date to an area that is within the following distances from any of the following features:

- (a) 50 feet from a property line.
- (b) 200 feet from a residence.
- (c) 100 feet from a body of surface water, including a lake, stream, or wetland.

(2) If a class 1 composting facility begins operation after the effective date of this rule, the management or storage of class 1 compostable material, compost, and residuals shall not occur in a wetland or floodplain as defined in R 299.4103(b), or in an area that is within the following distances from any of the following features:

- (a) 50 feet from a property line.
- (b) 200 feet from a residence. A facility that is established within 500 feet of a residence shall be obscured by a fence which is not less than 8 feet high and which provides 75% screening or by an earthen berm and landscaping that offers equivalent protection and is approved by the director.
- (c) 100 feet from a body of surface water, including a lake, stream, or wetland.
- (d) 2,000 feet from a type I or type IIa water supply well.
- (e) 800 feet from a type IIb or type III water supply well.
- (f) 500 feet from a church or other house of worship, hospital, nursing home, licensed day care center, or school, other than a home school.
- (g) 4 feet above groundwater.

(3) Owners and operators of new class 1 composting facilities, or class 1 composting facilities that expand beyond their original area established on the effective date of this rule, that are located within a 5-mile radius of any airport runway end that is used by turbojet or piston-type aircraft shall notify the affected airport and the federal aviation administration.

R 299.4121c Class 1 and Class 2 Composting Facilities; General Requirements

Rule 121c (1) A site qualifies as a class 1 or class 2 composting facility if the owner or operator of the site notifies the department of its composting activities and reports to the department within 30 days after the end of each state fiscal year the type and amount of class 1 and class 2 compostable material composted in the previous state fiscal year. The registration and reporting shall be done on forms provided by the department. A facility shall maintain on site records including:

- (a) The amount of compostable material brought to the site.
- (b) The amount of finished compost removed from the site.
- (c) The amount of deleterious material removed from the site.

(2) Any location that separates organic matter from mixtures of solid waste and that does not meet the exemptions contained in R 299.4104(s) shall be licensed as a processing plant under these rules, unless otherwise excluded.

(3) A class 1 or class 2 composting facility shall comply with the following requirements:

(a) The manager of the facility shall develop and maintain on-site a plan that adequately describes the following:

(i) Operational procedures.

(ii) Storm water management.

(iii) Mix design, including optimal carbon to nitrogen ratio, moisture content, particle size, and operating temperatures.

(iv) Monitoring for moisture content, temperature, oxygen content, and other appropriate parameters.

(v) Testing of finished compost.

(b) Any material with a carbon to nitrogen ratio less than 40 to 1 shall be incorporated into the compost pile within 72 hours of receipt or otherwise managed to prevent nuisance odors.

(c) Material within the composting process shall be thoroughly mixed and aerated as frequently as necessary to ensure adequate oxygen is available at all times to prevent the process from becoming anaerobic. The presence of insignificant anaerobic zones within the composting material will not cause the process to be classified as other than composting. This requirement does not apply to anaerobic decomposition done in a sealed mechanism.

(d) Run-off from the class 1 or class 2 composting facility that does not contact compost or compostable materials shall be managed as required by the storm water requirements of part 31.

(e) Storm water that contacts compost or compostable materials or compost leachate shall be managed as process water and may only be discharged from the composting facility according to a NPDES permit.

(f) Either a groundwater discharge permit shall be obtained from the department or the composting shall occur on an impermeable liner in accordance with R 299.4130.

(g) Testing of finished compost shall be done for the parameters in R 299.4121k.

(h) Compostable material collected in bags, other than paper bags, shall be debugged by the end of each working day unless otherwise managed to control odors. Only bags that meet the definition of class 1 compostable material may remain mixed with the compostable material.

(i) Compostable material used to make compost shall not contain foreign matter that:

(i) Can be reasonably removed,

(ii) Will inhibit composting, or

(iii) Cause the compost operation to otherwise violate these rules.

(j) The compostable material is separated from solid waste and maintained separately until used to produce compost.

(k) The compostable material is not stored in a manner constituting speculative accumulation. The owner, operator, or manager of the transfer facility, staging area, or class 1 or class 2 composting facility shall maintain records to demonstrate compliance with this requirement.

(l) The operation of the composting facility is managed in a manner that does not violate part 31 or part 55 or create a facility under part 201 of the act.

(m) The foreign matter in the finished compost including that resulting from the bags or containers used to collect class 1 compostable material shall be a maximum of 1%, by weight, of the material remaining on a 4-millimeter screen.

(n) If deleterious material removed from the compostable material or from the compost is stored on site it shall be stored in containers or on a liner in compliance with Rule 130 and be limited to a volume of 1000 cubic yards. Any deleterious material removed from compostable material or compost may not be

stored for more than 180 days.

(o) Composting shall not result in standing water and/or the attraction or harborage, of, rodents, or other vectors.

(p) Gypsum drywall introduced into the compost pile shall comprise less than 2.5%, by weight, of the compost mixture.

(q) The moisture content shall be kept at an appropriate level to minimize anaerobic conditions and prevent spontaneous combustion.

(r) The carbon to nitrogen ratio of the compost pile shall be maintained at a ratio that minimizes odors and results in unfinished compost.

(s) Unless approved by the department, composting does not result in more than 5,000 cubic yards of yard clippings and other compostable material, compost, deleterious materials and residuals present on any acre of property at the site.

(t) The compostable material is managed in a manner that does not create a nuisance.

(4) Nothing in this rule shall be construed to prevent the need for a facility governed by this rule to comply with local zoning requirements.

R 299.4121d Class 2 Composting Facility; Authorization and Specific Requirements Rule 121d. (1) A person shall not establish or operate a class 2 composting facility without authorization from the director.

(2) The owner or operator of the class 2 composting facility shall apply for authorization to compost on a form provided by the department. The application shall include the location of the composting operation, the type and the amount of materials to be composted, and a demonstration of compliance with this rule.

(3) When evaluating an application for authorization to compost class 2 compostable material at a class 2 composting facility, the director shall consider, at a minimum, all of the following:

(a) The location restrictions in R 299.4121b(2) and (3).

(b) The general compost facility requirements in R 299.4121c.

(c) The nature of the waste and finished compost as established under R 299.4121f and R 299.4121i.

(4) The director shall make a final decision on an application for a class 2 composting facility within 90 days of receiving a complete application. An authorization to compost class 2 compostable material at a class 2 composting facility shall be valid for a period of 2 years and may be renewed upon application. To be considered timely and sufficient for purposes of section 92 of 1969 PA 306, an application for renewal of an authorization must:

(a) Contain the information described in subrule (1) (a) of this rule, and

(b) Be received by the department no later than 90 days prior to the expiration of the preceding authorization.

(5) Class 2 compostable materials shall be separated from other solid waste and maintained separately until used to produce compost unless otherwise approved by the director.

(6) Compost produced from class 2 compostable materials shall be classified as restricted use compost pursuant to a petition submitted under R 299.4121i unless otherwise classified under R 299.4121j.

R 299.4121e Blending of Materials to Create Soil

Rule 121e. (1) A person may blend low hazard industrial waste listed in R 299.4122 with general use compost or compost produced from yard clippings for purposes of creating a soil like product under the following conditions:

- (i) The blending must occur at a class 1 or class 2 composting facility.**
 - (i) The mixture must have a beneficial agricultural or silvicultural use.**
 - (ii) The mixture must meet the criteria in R 299.4115.**
 - (iii) The low hazard industrial waste shall be blended with the general use compost within 30 days of arrival at the class 1 or class 2 composting facility.**
 - (iv) Either a groundwater discharge permit shall be obtained from the department or the storage and blending shall occur on an impermeable liner in accordance with R 299.4130.**
- (2) Gypsum drywall may be added to finished compost if it makes up less than 2.5% of the compost weight and is less than ¼ inch in diameter .**

R 299.4121f Petitions for use of class 2 compostable material as compost.

Rule 121f. (1) A person shall not use a class 2 compostable material as compost, unless the director approves the waste as a separated material appropriate for such use under this rule.

(2) A person who proposes to separate a waste for use as compost shall file a petition with the director under R 299.4118. To characterize such compost, the petitioner shall include all of the following information in the petition, in addition to the information required in R 299.4118:

- (a) The type of waste and its potential for creating a nuisance or environmental contamination.**
- (b) Time required for compost to reach 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 of a dried compost sample that passes through a 4.0 millimeter screen. The foreign matter 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 commercial 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 299.4121g Pilot Projects to Declare a Class 2 Material as Class 1 Compostable Material

Rule 121g. (1) A person may conduct a pilot project to compost a waste in order to support a petition to declare the waste a class 1 compostable material if authorized by the director.

(2) Composting pursuant to this rule shall be done in a fully contained manner as approved by the director and shall not pose an unacceptable risk of environmental

contamination. The amount of waste composted shall not exceed 500 cubic yards, unless otherwise approved by the director.

(3) The director shall authorize a pilot project upon a determination that the requirements of this rule will be met. The request for such authorization shall include a detailed description of the proposed pilot project, including:

- (i) The location of the project.
- (ii) A description of the waste(s) to be composted.
- (iii) The procedures for conducting representative sampling and testing of the finished compost in accordance with R 299.4121i.
- (iv) A description of how the method of composting will meet the requirement of this rule.
- (v) The proposed completion date of the pilot project.

(4) The compost resulting from the pilot project shall be disposed into a licensed landfill, within 30 days of the completion of the pilot project, unless the director has approved an alternate timeframe or approved the use of the finished compost.

(5) All residual compost materials shall be cleaned from equipment used in the pilot project within 30 days of the completion of the pilot project.

R 299.4121h Compost Sampling Requirements

Rule 121h. (1) Testing of compost required by this part shall be done according to this rule, unless the director has reviewed and approved an alternate procedure.

(2) Compost produced from class 1 compostable material shall be tested for the general parameters contained in R 299.4121k.

(3) Compost produced from class 2 compostable materials shall be tested for and not exceed the parameters that the director determines are applicable to the feedstocks involved.

R 299.4121i Petitions to Classify Compost

Rule 121i. (1) A person may petition the director to designate a solid waste as a class 1 compostable material or compost produced from class 2 compostable materials as restricted use compost.

(2) A petition to classify a waste as a class 1 compostable material or compost produced from class 2 compostable materials as a restricted use compost shall meet the requirements of R 299,4118.

(3) In granting a petition under this rule, the director shall specify those parameters described in R 299.4121k and R 299.4115 that shall be tested under subrule (4) of this rule. The director's decision shall be based on:

- (i) The amount of difference between the concentration of a given parameter in the compost and the criteria for that parameter in R 299.4115
- (ii) The variability of results among samples.

(4) Material that is classified as a class 1 compostable material, by the director, based on a petition under this rule, shall comply with the following:

(a) Compost produced from class 1 compostable material shall be tested when there is a significant change in the process that generated the compost. A significant change is one with the potential to change the classification of the compost as specified in R 299.4121j. For purposes of this subrule, a change in the process that generates a waste that has been classified as a class 1 compostable material under subrule (4) (b) (i) of this rule shall be considered a change in the process that generated the compost.

(b) Any finished compost produced from class 2 compostable material that has been classified as a class 1 compostable material in accordance with R 299.4121j(1), that

fails to meet the criteria of a general use compost in R 299.4121i(5) (a), shall cause the class 1 compostable material to be reclassified as a class 2 compostable material .

(c) The manager of the compost facility shall notify the department within 10 working days upon receiving information that their finished compost no longer meets the criteria to be classified as general use compost, and shall do one of the following with the finished compost:

(i) Dispose of the remaining finished compost at a properly licensed landfill.

(ii) Stockpile the finished compost on-site until such time that the generator has repitioned the director to reclassify the compost according to the conditions of this rule and received a new classification.

(iii) Use the finished compost according to the requirements contained in R 299.4121j. Such use without written approval from the department may subject the generator of the compost to response measures under part 201.

(5) Compost produced from class 2 compostable materials, shall comply with the following:

(a) Be retested in accordance with this rule, not less than annually, unless the director has determined that the test results demonstrate insignificant variability over a 2-year period, using procedures specified in this rule. The test results shall be submitted to the director. The director shall specify a more frequent schedule for testing if the characteristics of the material may vary significantly.

(b) The manager of the compost facility shall notify the department within 10 working days upon receiving information that their finished compost no longer meets the criteria to be classified as general use compost and shall do one of the following with the finished compost:

(i) Dispose of the remaining finished compost at a properly licensed landfill,

(ii) Stockpile the finished compost on-site until such time that the generator has repitioned the director to reclassify the compost according to the conditions of this rule and received a new classification.

(iii) Use the finished compost according to the requirements contained in R 299.4121j. Such use without written approval from the department may subject the generator of the compost to response measures under part 201.

R 299.4121j Compost Classification and Restrictions

Rule 121j. (1) Compost produced from class 1 compostable material shall be classified as general use compost. Compost produced from class 2 compostable material shall be classified as a general use compost if it meets the applicable requirements specified in R 299.4115.

(a) General use compost must be accompanied by a label, in the case of bagged compost, or an information sheet, in the case of bulk sales.

(b) The label or information sheet required by subrule (1) (a) of this rule shall contain the following information:

(i) The name and generator of the finished compost.

(ii) Feedstock and bulking agents used to produce the compost.

(iii) Use instructions, including application rates and any restrictions on use.

(iv) If the finished compost is being marketed as a fertilizer, micronutrient, or soil conditioner, the label shall list the applicable R 299.121k parameters and shall include a statement indicating that the generator of the compost is in compliance with the applicable requirements from part 85. The generator shall indicate the license number on the label, if applicable.

(v) If the finished compost is being marketed as a liming material the label shall list the applicable R 299.121k parameters and shall include a statement indicating that

the generator of the compost is in compliance with applicable requirements from act 162 of 1955, Michigan liming materials. The generator shall indicate the liming license number on the label.

(vi) A statement indicating how the user of the compost may obtain the results of all testing, including test parameters and concentration levels.

(2) Compost produced from class 2 compostable materials that does not meet the criteria in R 299.4115 shall be classified as restricted use compost and used in a manner approved by the director pursuant to a petition submitted in compliance with R 299.121i(2).

(a) The application of class 2 compost shall not cause a release that creates a "facility" under part 201.

(b) The director may impose conditions for use of the compost to ensure the protection of human health and the environment.

(c) Restricted use compost must be accompanied by a label, in the case of bulk use compost marketed in bags, or an information sheet, in the case of bulk sales.

(d) The label or information sheet required by subrule (2) (c) of this rule shall contain the information contained in subrule (1) (b) (i) – (v) of this rule. In addition, the label or information sheet shall contain a statement that the compost has been approved for use by the state of Michigan and further indicating how the user of the compost may obtain the results of all testing including test parameters, concentration levels, and the applicable standards.

R 299.4121k Compost Parameters; General

Rule 121k. (1) The general compost parameters are as follows:

(a) Parameter

(b) Ph,

(c) C:N ratio,

(d) Soluble salts,

(e) Total available nitrogen,

(f) Phosphorus reported as P₂O₅,

(g) Potassium reported as K₂O,

(h) Calcium,

(i) Magnesium,

(j) Chloride,

(k) Sulfate,

(l) Foreign matter content,

(m) Pathogens – for composts containing manures and/or biosolids

(i) Fecal coliforms,

(ii) Helminth ova,

(iii) Salmonella sp.,

(iv) Enteric viruses,

(v) Other pathogens as determined by the director.

R 299.4121l Testing and monitoring of yard clippings, class 1, and class 2 compost facilities

Rule 121l. (1) Until January 1, 2014, yard clippings composting facilities that have more than 5,000 cubic yards of compost compostable material, and residuals on site at any time, shall sample and test the water that contacts compost and annually submit the data to the department on a form provided by the department.

(2) The water shall be tested for the following parameters according to guidance developed by the department:

- (a) Ammonia,
- (b) BOD₅,
- (c) Dissolved oxygen,
- (d) Total suspended solids,
- (e) Total dissolved solids
- (f) Total inorganic nitrogen
- (g) Total Phosphorus
- (h) Nitrate
- (i) Nitrite
- (j) Iron
- (k) Manganese
- (l) Arsenic
- (m) Atrazine herbicide
- (n) Simazine herbicide
- (o) 2,4-D
- (p) Carbofuran insecticide
- (q) Carbaryl insecticide
- (r) Malathion insecticide
- (s) Dichlobenil
- (t) Dicamba herbicide
- (u) Bifenthrin
- (v) Permethrin insecticide

R 299.4122 Criteria for designating low-hazard industrial waste.

Rule 122. (1) **The following wastes are classified as low-hazard wastes** An industrial waste shall be classified as a low-hazard industrial waste if it is 1 of the following wastes resulting from processes of consistent character:

- (a) Coal or wood ash, as defined in the act.
- (b) Cement kiln dust, when stabilized to minimize leaching of inorganic chemicals, to an unconfined compressive strength equal to or greater than 100 pounds per square inch and a vertical hydraulic conductivity that is not more than 1×10^{-7} centimeters per second.
- (c) Paper mill waste, as defined in R 299.4104.
- (d) Sludge from the treatment and conditioning of water **from a community water system** for domestic use.
- (e) Residues from the thermal treatment of petroleum contaminated soil, media, and debris.
- (f) **Scrap wood.**
- (g) **Street cleanings.**
- (h) **Asphalt shingles.**
- (i) **Foundry sands from ferrous and aluminum foundries.**
- (j) **New construction or production scrap drywall.**
- (k) **Chipped or shredded tires for the purpose of disposal into a licensed landfill.**
- (l) **Any combination of coal ash, wood ash, scrap wood ash, paper mill waste ash, or rail road tie ash.**
- (m) **Copper slag.**
- (n) **Copper stamp sands.**
- (o) **Dredge material from non-remedial activities.**
- (p) **Flue gas desulfurization sludge.**
- (q) **Dewatered grinding slurry generated from public transportation agency road projects.**

(2) An industrial waste that is not listed in subrule (1) of this rule shall be considered a low-hazard industrial waste if it is a by-product of a production process or sludge of 1 of the following industries and the generator has **representatively sampled the waste determined, based on testing of representative samples or applied** applying knowledge of the characteristics of the waste in light of the materials or process used to generate the waste, that the waste shall not leach more than the following concentration of hazardous substances:

(a) For paper or paperboard mills that have a standard industrial classification of 2621 or 2631, any of the following concentrations:

(i) For metals listed in table 101, the threshold value listed in that table.

(ii) For ~~nonhalogenated~~ volatile organics **compounds** listed in table 102 103, the threshold value listed in that table.

(iii) ~~For aromatic volatile organics listed in table 104, the threshold value listed in that table.~~

(iv) ~~For phenolic compounds listed in table 103 405, the threshold value listed in that table.~~

(b) For primary metals or fabricated metal industries that have a standard industrial classification of 33 or 34, any of the following concentrations:

(i) For metals listed in table 101, the threshold value listed in that table.

(ii) For ~~halogenated~~ volatile organics **compounds** specified in table 102, the threshold value listed in that table.

(iii) ~~For nonhalogenated volatile organics listed in table 103, the threshold value listed in that table.~~

(iv) ~~For aromatic volatile organics listed in table 104, the threshold value listed in that table.~~

(v) ~~For phenolic compounds listed in table 103 405, the threshold value listed in that table.~~

(iv v) For formaldehyde, 0.12 ~~mg/l~~ **milligrams per liter.**

(c) For lumber and wood product industries that have a standard industrial classification of 24, any of the following concentrations:

(i) For metals listed in table 101, the threshold value listed in that table.

(ii) For ~~nonhalogenated~~ volatile organics **compounds** listed in table 102 103, the threshold value listed in that table.

(iii) ~~For aromatic volatile organics listed in table 104, the threshold value listed in that table.~~

(iv) ~~For phenolic compounds listed in table 103 405, the threshold value listed in that table.~~

(iv v) For formaldehyde, 0.12 ~~mg/l~~ **milligrams per liter.**

(d) For cement manufacturing industries that have a standard industrial classification of 3241, ~~any of the following concentrations:~~ **the metals listed in table 101, the threshold value listed in that table.**

(i) ~~For metals listed in table 101, the threshold value listed in that table.~~

(ii) ~~For halogenated volatile organics specified in table 102, the threshold value listed in that table.~~

(iii) ~~For nonhalogenated volatile organics listed in table 103, the threshold value listed in that table.~~

(iv) ~~For aromatic volatile organics listed in table 104, the threshold value listed in that table.~~

(3) Industries not listed in subrule (2) of this rule may petition the director to designate a waste as a low-hazard industrial waste by submitting a petition **under** ~~pursuant to the provisions of R 299.4118.~~ The director shall designate a waste as a low hazard industrial waste if the petition submitted **under** ~~pursuant to the provisions of R 299.4118~~ demonstrates that the

concentration of hazardous substances in leachate from the waste does not exceed either the method detection limit of the substance or any of the following concentrations:

(a) For constituents listed in tables 101 to 103, that concentration. ~~The concentrations in table 101 represent 10 times the drinking water standard specified in 40 C.F.R. part 257, or 1/10 the hazardous waste threshold specified in R 299.9217, whichever is greater.~~

(b) For constituents not listed in tables 101 to 103, 10 times **the generic residential drinking water cleanup criteria specified in R 299.5744.** ~~either of the following concentrations:~~

(i) ~~For a carcinogen acting by a threshold or a nonthreshold mechanism, the concentration that represents an increased cancer risk of 1 in 1,000,000 calculated according to the procedures in R 299.5723.~~

(ii) ~~For a hazardous substance that is not a carcinogen, a genotoxic teratogen, or a germ line mutagen, the concentration that represents the human life cycle safe concentration calculated according to the procedures in R 299.5725.~~

(4) To evaluate the leaching potential of an industrial waste, the person shall **representatively sample** ~~analyze representative samples~~ of the waste **under** ~~in accordance with R 299.4118(2)(e), the toxicity characteristic leaching procedure EPA method 1311 or the synthetic precipitation leaching procedure, EPA method 1312.~~ Samples shall be collected and analyzed in accordance with the document entitled "*Test Methods for Evaluating Solid Waste,*" SW-846, 3rd edition, dated February 1987, which is adopted by reference in R 299.4133. As specified in that document, 4 discrete samples shall constitute the minimum number of samples necessary to be considered representative of a waste.

R 299.4123 Table 101; threshold values for inorganic constituents.

Rule 123. Table 101 reads as follows:

Constituent	Low-Hazard Waste Threshold Value (mg/l milligrams per liter)
Aluminum	0.50
Antimony	0.06
Arsenic	0.50
Barium	20.0 10.0
Beryllium	0.04
Boron	5.0
Cadmium	0.1
Cobalt	0.4
Chromium	1.0 0.5
Copper	10.0
Iron	3.0
Lead	0.5
Manganese	0.50
Mercury (inorganic)	0.02
Nickel (soluble salts)	1.0
Selenium	0.1
Silver	0.5
Thallium	0.02
Vanadium	0.045

Zinc

24.0 ~~50.0~~

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R 299.4124 Table 102; threshold values for halogenated volatile organics **compounds**
 Rule 124. Table 102 reads as follows:

Table 102	
Constituent	Low-Hazard Waste Threshold Value (mg/l milligrams per liter)
Benzene	0.05
Benzyl chloride	77.0 0.002
Bromodichloromethane	1.0 0.003
Bromoform	1.0 0.04
Bromomethane	0.1
Carbon tetrachloride	0.05
Chlorobenzene	1.0 10.0
Chloroethane	4.3 0.09
Chloroform	1.0 0.6
Chloromethane	2.6 0.03
Dibromochloromethane	1.0 0.004
Dibromomethane	0.8 0.7
1,2-Dichlorobenzene	6.0
1,3-Dichlorobenzene	66.0 6.0
1,4-Dichlorobenzene	0.75
Dichlorodifluoromethane	17.0 10.0
1,1-Dichloroethane	8.8 7.0
1,2-Dichloroethane	0.05
1,1-Dichloroethene	0.07
Cis-1,2-dichloroethene	0.7
Trans-1,2-dichloroethene	1.0
1,2-Dichloropropane	0.05 0.005
1,3-Dichloropropene	0.085 0.002
Diethyl ether	0.1
Ethylbenzene	0.74
Methylethylketone (2-butanone)	130.0
Methylisobutylketone (4-methyl-2-pentanone)	18.0
Methylene chloride	0.05
1,1,1,2-Tetrachloroethane	0.77 0.04
1,1,2,2-Tetrachloroethane	0.085 0.002
Tetrachloroethene	0.05 0.07
1,1,1-Trichloroethane	2.0
1,1,2-Trichloroethane	0.05 0.006
Trichloroethene	0.05
Trichlorofluoromethane	26.0 20.0
1,2,3-Trichloropropane	0.42
Vinyl chloride	0.02
Total xylene isomers	2.8

R 299.4125. Table 103; threshold values for nonhalogenated volatile organics.
Rule 125. Table 103 reads as follows:

Table 103

<u>Constituent</u>	<u>Low-Hazard Waste Threshold Value (mg/l)</u>
Diethyl ether	10.0
Methylethylketone (2-butanone)	10.0
Methylisobutylketone (4-methyl-2-pentanone)	4.0

R 299.4126. Table 104; threshold values for aromatic volatile organics.
Rule 126. Table 104 reads as follows:

Table 104

<u>Constituent</u>	<u>Low-Hazard Waste Threshold Value (mg/l)</u>
Benzene	0.05
1,2-Dichlorobenzene	6.0
1,3-Dichlorobenzene	6.0
1,4-Dichlorobenzene	0.75
Ethylbenzene	0.7
Toluene	8.0
Total xylene isomers	3.0
o-Xylene	3.0
m-Xylene	3.0
p-Xylene	3.0

R 299.4125 4127. Table ~~103~~ 105; threshold values for phenolic compounds.
Rule 125~~7~~. Table ~~103~~ 105 reads as follows:

<u>Table 103 105</u>	
<u>Constituent</u>	<u>Low-Hazard Waste Threshold Value (mg/l milligrams per liter)</u>
2-chlorophenol	0.045 0.4
Total cresols	3.7
o-Cresol (2-methylphenol)	20.0
m-Cresol (3-methylphenol)	20.0
p-Cresol (4-methylphenol)	20.0
Cresol	20.0
2,4-Dichlorophenol	0.73 0.2
2,4-Dimethylphenol	3.7 4.0
2,6 5-Dimethylphenol	0.044 0.04
3,4 Dimethylphenol	0.1
2-Methyl-4,6-dinitrophenol	0.02 0.03
Pentachlorophenol	10.0
Phenol	44.0 40.0
2,4,5-Trichlorophenol	40.0
2,4,6-Trichlorophenol	0.2

R 299.4126 Timeframe for director approval.

Rule 126. (1) Department review of petitions submitted under part 1 of these rules shall comply with the following:

(a) Within 30 days of receiving a petition or request for alternate criteria, the director shall determine whether the petition or request for alternate criteria contain all the required information and request additional information necessary to evaluate the petition or request for alternate criteria.

(b) Within 60 days of determining that the petition or request for alternate criteria is administratively complete, either approve the petition or request for alternate criteria with conditions that are necessary to protect human health and the environment or deny the petition.

R 299.4127 Regulation of dredge material

Rule 127. (1) Dredge material, other than that specified in R 299.4110(l), shall be managed under this rule.

(2) Dredge material meeting any of the requirements listed below shall be considered to be inert and its use upland and outside the floodplain does not require a construction permit or operating license issued under this part:

(a) Representative testing from on-site dredge material shows that on average less than 5% of the material passes a #200 sieve. This condition does not apply to dredge projects on the Titabawassee River, downstream of Midland, or the Saginaw River and Saginaw Bay from Sand Point to Point Au Gres.

(b) The volume of material is less than 1,000 cubic yards and is removed from an area not contained in an Area of Concern as determined by the United States Environmental Protection Agency.

(c) If representative testing performed within the past 10 years, from on-site dredge material, that is as approved by the department, and have been determined to meet the part 201 generic residential criteria and the data remains representative of current conditions.

(d) The dredge material is designated as inert by the department under R 299.4115 or R 299.4116.

(e) The dredge material is disposed upland, on-site, and all of the following are satisfied:

(i) The dredge materials are covered with clean cover that consists of 6 inches of soil that can support vegetation, concrete, or in another manner approved by the department.

(ii) The location of disposal is subject to a recorded deed restriction approved by the department.

(iii) The generator determines through testing or knowledge that the material is not a regulated hazardous waste under part 111.

(iv) The disposal is in accordance with the conditions of a permit issued by the department under part 301 or part 325 of the act.

(3) Dredge material may be disposed in compliance with either of the following:

(a) Disposed in a licensed landfill.

(b) Disposed in a corps of engineers confined disposal facility.

R 299.4129 Storage of solid waste in uncontained waste piles.

Rule 129. (1) Except as provided in subrule (2) of this rule, the storage of waste in a pile that is not contained ~~under pursuant to~~ R 299.4130 constitutes disposal and requires a permit or license under the act. A waste pile that is required to have a permit or license under the act shall be in compliance with the hydrogeological report, groundwater monitoring, and

groundwater performance standards which are applicable to type III landfills and which are specified in part 3 of these rules.

(2) The storage of the following waste in piles before reuse or disposal does not require a permit or license under the act and these rules if the conditions specified in subrule (3) or (4) of this rule are met:

(a) Low-hazard industrial waste that is separated and stored before being returned to the original process from which the waste was generated or was being used or reused as ingredients in an industrial process to make a product, unless the materials are being stored in a manner which constitutes speculative accumulation.

(b) Low-hazard industrial waste that is stored in a waste pile which was in existence on October 8, 1993, if the pile does not expand horizontally.

(c) Low-hazard industrial waste that is stored for less than 60 days before being transported for disposal.

(d) Construction and demolition waste that is stored at the site of generation for less than 1 year before being transported for disposal.

(3) Owners and operators of waste piles that are specified in subrule (2)(b) of this rule shall ensure that the unit is not in violation of parts 17, 31, ~~or part 55,~~ and 303 of the act, does not create a nuisance, **does not cause a release that creates a "facility" as defined in part 201 of the act,** and does not result in environmental contamination after closure.

(4) Owners and operators of waste piles that are specified in subrule (2)(a), (c), or (d) of this rule shall ensure that the unit is not in violation of parts 17, 31, 55, and 303 of the act, does not create a nuisance, does not cause a release that creates a "facility" as defined in part 201 of the act, and does not result in environmental contamination after closure. Waste piles may not be located within 200 feet of surface waters or within 5 feet of groundwater, unless approved in writing by the director.

(5) The total pile volume for waste piles that were in existence on October 8, 1993 shall decrease, on a three year rolling period, in compliance with the following:

(i) The amount of stored material removed from the company's sites shall exceed the yearly generation rate by fifty percent.

(ii) Records of material generation and material removal shall be maintained by the subject companies for five years.

Deleted: These waste piles shall be closed according to R 299.4130(10), or in another manner approved by the department, within 5 years of the effective date of these rules, unless an alternate timeframe is approved, in writing, on a case-by-case basis, by the director that considers the conditions of the site and would be protective of public health, safety, welfare, and the environment.

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Deleted: Waste piles may not be located within 200 feet of surface waters or within 5 feet of groundwater, unless approved in writing by the director.

R299.4142 Change in Owner or Operator

Rule 142. A change in owner or operator shall not affect any authorization under part 1 of these rules, as long as either the prior or new owner or operator shall notify the Department in writing of a change in owner or operator within 60 days of the date when the change became effective. The notification shall include all of the following information:

(a) An identification of the new owner or operator, including name, phone number and address, and a specific date for change in owner or operator.

(b) A written statement by the new owner or operator that any prior certification, application, petition or other request (except for name, phone number and/or address) by the prior notifying owner or operator is still accurate and that the new owner or operator accepts the conditions and requirements applicable to any authorization under part 1 of these rules.