

**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)**  
**Act 451 of 1994**  
**SUBPART 9**  
**BENEFICIAL USE BY-PRODUCTS**

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

Sec. 11551.

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

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

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

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

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

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

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

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

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

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

(i) The material is coal bottom ash, wood ash, pulp and paper mill material, pulp and paper mill ash, mixed wood ash, foundry sand from ferrous or aluminum foundries, cement kiln dust, lime kiln dust, lime water softening residuals, flue gas desulfurization gypsum, soil washed or otherwise removed from sugar beets, or dewatered concrete grinding slurry from public transportation agency road projects.

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

CONSTITUENT CUMULATIVE LOAD

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

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

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

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

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

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

(4) The storage of a material for beneficial use 3 that complies with regulation no. 641, commercial fertilizer bulk storage, R 285.641.1 to R 285.641.18 of the Michigan administrative code, shall be considered to comply with the storage requirements of this part.

(5) A person that actively manages and reuses a beneficial use by-product that has already been used in compliance with this part may rely on analytical data from the prior use.

(6) All of the following apply to beneficial uses 1 and 2 at and along roadways:

(a) Routine repair and replacement of roadways constructed using beneficial use materials does not constitute generation of beneficial use by-products triggering the requirements of this section if the beneficial use by-products remain or are reused at the same roadway and are used in a manner that meets the definition of beneficial use 1 or beneficial use 2, as appropriate. If the beneficial use by-products will be reused at some place other than the same roadway, then the requirements applicable to generators of beneficial use by-products must be met, except as follows:

(i) As set forth in subsection (5).

(ii) The requirements of section 11552 apply only if the category of beneficial use will change.

(b) For beneficial use 2, the requirement that beneficial use materials be covered by concrete, asphalt, or 6 inches of gravel applies at the time of placement and use. The development of potholes, shoulder erosion, or similar deterioration does not result in a violation of this part.

(c) If road materials containing beneficial use by-products are ground, reheated, or melted for reuse, the requirements of part 55 must be met.

(d) This part does not prohibit the state transportation department from seeking additional data or information for road building materials or from requiring that road building materials meet state transportation department specifications and standards.

(7) For beneficial use 3, the material that is offered for sale or use shall be annually registered or licensed under part 85 or 1955 PA 162, MCL 290.531 to 290.538. In addition to the information required under part 85 or 1955 PA 162, MCL 290.531 to 290.538, the following information shall be submitted to the department of agriculture and rural development with the license or registration application:

(a) Directions for use to ensure that the material is applied at an agronomic rate that has been reviewed by a certified crop advisor.

(b) A laboratory analysis report that contains all of the following:

(i) Sampling results that demonstrate that the material does not pose harm to human health or the environment. One method by which this demonstration can be made is by sampling results that comply with both of the following:

(A) The levels established pursuant to the association of American plant food control officials' statement of uniform interpretation and policy #25, as follows:

(I) A fertilizer with a phosphorus or micronutrient guarantee shall apply the policy in its entirety.

(II) A fertilizer with only a nitrogen, potassium, or secondary nutrient guarantee shall use the micronutrients column in the policy and apply a multiplier of 1 to determine the maximum allowable concentration of each metal.

(III) A soil conditioner or liming material shall use the micronutrients column in the policy and apply a multiplier of 1 to determine the maximum allowable concentration of each metal.

(B) The part 201 generic residential soil direct contact cleanup criteria for volatile organic compounds (as determined by U.S. EPA method 8260), semivolatile organic compounds (as determined by U.S. EPA method 8270c), and dioxins (as determined by U.S. EPA method 1613b). Results for dioxins shall be reported on a dry weight basis, and total dioxin equivalence shall be calculated and reported utilizing the U.S. EPA toxic equivalency factors (U.S. EPA/100/R10/005).

(ii) For a fertilizer, all of the following used by a certified crop advisor to determine an agronomic rate consistent with generally accepted agricultural and management practices:

(A) A demonstration that the material contains the minimum percentage of each plant nutrient guaranteed or claimed to be present.

(B) The percentage of dry solids, nitrogen, ammonium nitrogen, nitrate nitrogen, phosphorus, and potassium in the material.

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

(iii) For a soil conditioner or a liming material, all of the following used by a certified crop advisor to determine an agronomic rate consistent with generally accepted agricultural and management practices:

(A) The percentage of dry solids in the material.

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

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

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

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

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

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

**History:** Add. 2014, Act 178, Eff. Sept. 16, 2014  
**Popular Name:** Act 451  
**Popular Name:** NREPA  
**Popular Name:** Solid Waste Act

### **324.11551a Beneficial use by-product not required.**

Sec. 11551a.

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

**History:** Add. 2014, Act 178, Eff. Sept. 16, 2014  
**Popular Name:** Act 451  
**Popular Name:** NREPA  
**Popular Name:** Solid Waste Act

### **324.11552 Notice; report; confidentiality.**

Sec. 11552.

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

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

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

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

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

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

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

**History:** Add. 2014, Act 178, Eff. Sept. 16, 2014  
**Popular Name:** Act 451  
**Popular Name:** NREPA

**324.11553 Promoting and fostering use of wastes and by-products for recycling or beneficial purposes; approval of material, use, or material and use; request; approval or denial by department; determination made prior to September 16, 2014; applicability to material used under part 115.**

Sec. 11553.

(1) Consistent with the requirements of part 115, the department shall apply this section so as to promote and foster the use of wastes and by-products for recycling or beneficial purposes.

(2) Any person may request the department, consistent with the definitions and other terms of part 115, to approve a material, a use, or a material and use as a source separated material; a beneficial use by-product for beneficial use 1, 2, 4, or 5; an inert material; a low-hazard industrial waste; nondetrimental material managed for agricultural or silvicultural use; or another material, use, or material and use that can be approved under part 115. Among other things, a person may request the department to approve a use that does not meet the definition of beneficial use 2 under section 11502(8)(a) because the property is not nonresidential property or under section 11502(8)(a), (b), or (c) because the material exceeds 4 feet in thickness. A request under this subsection shall be in writing and contain a description of the material including the process generating it; results of analyses of representative samples of the material for any hazardous substances that the person has knowledge or reason to believe could be present in the material, based on its source, its composition, or the process that generated it; and, if applicable, a description of the proposed use. The analysis and sampling of the material under this subsection shall be consistent with the methods identified in "Standard Methods for the Examination of Water and Wastewater, 20th Edition," (jointly published by the American Public Health Association, the American Water Works Association, and the Water Environment Federation) or "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), AND V (2015); 1 or more peer-reviewed standards developed by a national or international organization, such as ASTM International; or 1 or more standards or methods approved by the department or the EPA. The department shall approve or deny the request in writing within 150 days after the request is received, unless the parties agree to an extension. If the department determines that the request does not include sufficient information, the department shall, not more than 60 days after receipt of the request, notify the requester. The notice shall specify the additional information that is required. The 150-day period is tolled until the requestor submits the information specified in the notice. If the department approves a request under this subsection, the approval shall include the following statement: "This approval does not require any use of any beneficial use by-product by a governmental entity or any other person." The department may impose conditions and other requirements consistent with the purposes of part 115 on a material, a use, or a material and use approved under this section that are reasonably necessary for the use. If a request is approved with conditions or other requirements, the approval shall specifically state the conditions or other requirements. If the request is denied, the denial shall, to the extent practical, state with specificity all of the reasons for denial. If the department fails to approve or deny the request within the 150-day period, the request is considered approved. A person requesting approval under this subsection may seek review of any final department decision pursuant to section 631 of the revised judicature act of 1961, 1961 PA 236, MCL 600.631.

(3) The department shall approve a material for a specified use as a beneficial use by-product if all of the following requirements are met:

(a) The material is an industrial or commercial material that is or has the potential to be generated in high volumes.

(b) The proposed use serves a legitimate beneficial purpose other than providing a means to discard the material.

(c) A market exists for the material or there is a reasonable potential for the creation of a new market for the material if it is approved as a beneficial use by-product.

(d) The material and use meet all federal and state consumer protection and product safety laws and regulations.

(e) The material meets all of the following requirements:

(i) Any hazardous substances in the material do not pose a direct contact health hazard to humans.

(ii) The material does not leach, decompose, or dissolve to form a leachate that exceeds either of the following:

(A) Part 201 generic residential groundwater drinking water criteria.

(B) Surface water quality standards established under part 31.

(iii) The material does not produce emissions that violate part 55 or that create a nuisance.

(4) The department may approve a material for a specified use as a beneficial use by-product or as restricted use compost if the material meets the requirements of subsection (3)(a), (b), (c), and (d) but fails to meet the requirements of subsection (3)(e) and if the department determines that the material and use are protective of the

environment, natural resources, and the public health, safety, and welfare. In making the determination, the department shall consider the potential for exposure and risk to the environment, natural resources, and the public health, safety, and welfare given the nature of the material, its proposed use, and the environmental fate and transport of any hazardous substances in the material in soil, groundwater, or other relevant media.

(5) The department shall approve a material as inert or as general use compost if all of the following requirements are met:

- (a) The material is proposed to be used for a legitimate purpose other than a means to dispose of the material.
- (b) Substances in the material do not pose a direct contact health hazard to humans.
- (c) The material does not leach, decompose, or dissolve in water or other liquids likely to be found at the area of placement, disposal, or use to form a leachate that exceeds either of the following:
  - (i) Part 201 generic residential groundwater drinking water criteria.
  - (ii) Surface water quality standards established under part 31.
- (d) The material does not produce emissions that violate part 55 or that create a nuisance.
- (6) The department may approve a material as inert if the material meets the requirements of subsection (5)(a) but fails to meet the requirements of subsection (5)(b), (c), or (d) and if the department determines that the material is protective of the environment, natural resources, and the public health, safety, and welfare. In making the determination, the department shall consider the potential for exposure and risk to the environment, natural resources, and the public health, safety, and welfare given the nature of the material, its proposed use, and the environmental fate and transport of any hazardous substances in the material in soil, groundwater, or other relevant media.

(7) The department shall approve a material as a low-hazard industrial waste if hazardous substances in representative samples of the material do not leach, using, at the option of the generator, EPA method 1311, "Toxicity Characteristic Leaching Procedure", EPA method 1312, "Synthetic Precipitation Leaching Procedure", or any other method approved by the department that more accurately simulates mobility, above the higher of the following:

- (a) One-tenth the hazardous waste toxicity characteristic threshold as set forth in rules promulgated under part 111.
- (b) Ten times the generic residential groundwater drinking water cleanup criteria as set forth in rules promulgated under part 201.

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

(9) Any written determination by the department made before September 16, 2014, designating a material as an inert material, an inert material appropriate for general reuse, an inert material appropriate for reuse at a specific location, an inert material appropriate for specific reuse instead of virgin material, a source separated material, a low-hazard industrial waste, or a non-solid-waste material remains in effect according to its terms or until forfeited in writing by the person who received the determination. Upon termination, expiration, or forfeiture of the written determination, the current requirements of part 115 control. The amendments made to this part by 2014 PA 178 do not rescind, invalidate, limit, or modify any such prior determination in any way.

(10) Notwithstanding any other provision of part 115, a person in possession of material that is designated or approved for beneficial use or as inert material or in possession of material from an industrial facility that is designated or approved as source separated material is not subject to regulation as a materials management facility if the person manages and uses the material as provided in part 115 for that material.

**History:** Add. 2014, Act 178, Eff. Sept. 16, 2014 ;-- Am. 2022, Act 248, Eff. Mar. 29, 2023

**Popular Name:** Act 451

**Popular Name:** NREPA

**Popular Name:** Solid Waste Act

### **324.11554 Administration and enforcement of part 115.**

Sec. 11554.

The department of agriculture and rural development, and not the department of environment, Great Lakes, and energy, shall administer and enforce part 115 in connection with any material that is licensed or registered under part 85 or 1955 PA 162, MCL 290.531 to 290.538.

**History:** Add. 2014, Act 178, Eff. Sept. 16, 2014 ;-- Am. 2022, Act 248, Eff. Mar. 29, 2023

**Popular Name:** Act 451

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