

Solid Waste Exemptions

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Today's Goals

- What is a regulated solid waste
- Statutory exemptions
- Rule exemptions
- Generic exemptions
- How to petition the DEQ for a specific exemption

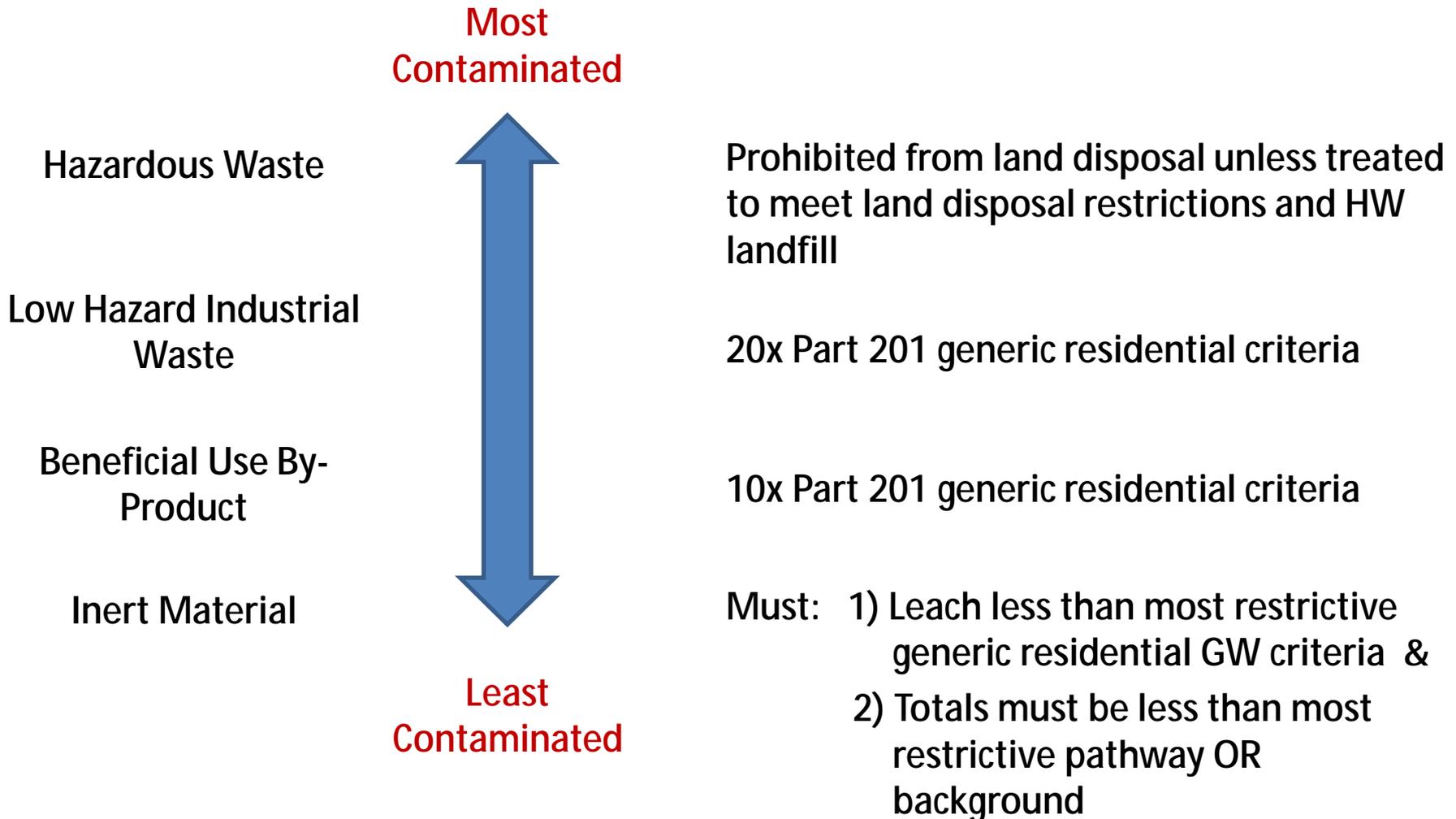
Regulatory Drivers

Subtitle D of the federal Resource Conservation and Recovery Act (RCRA) of 1976, as amended

Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended

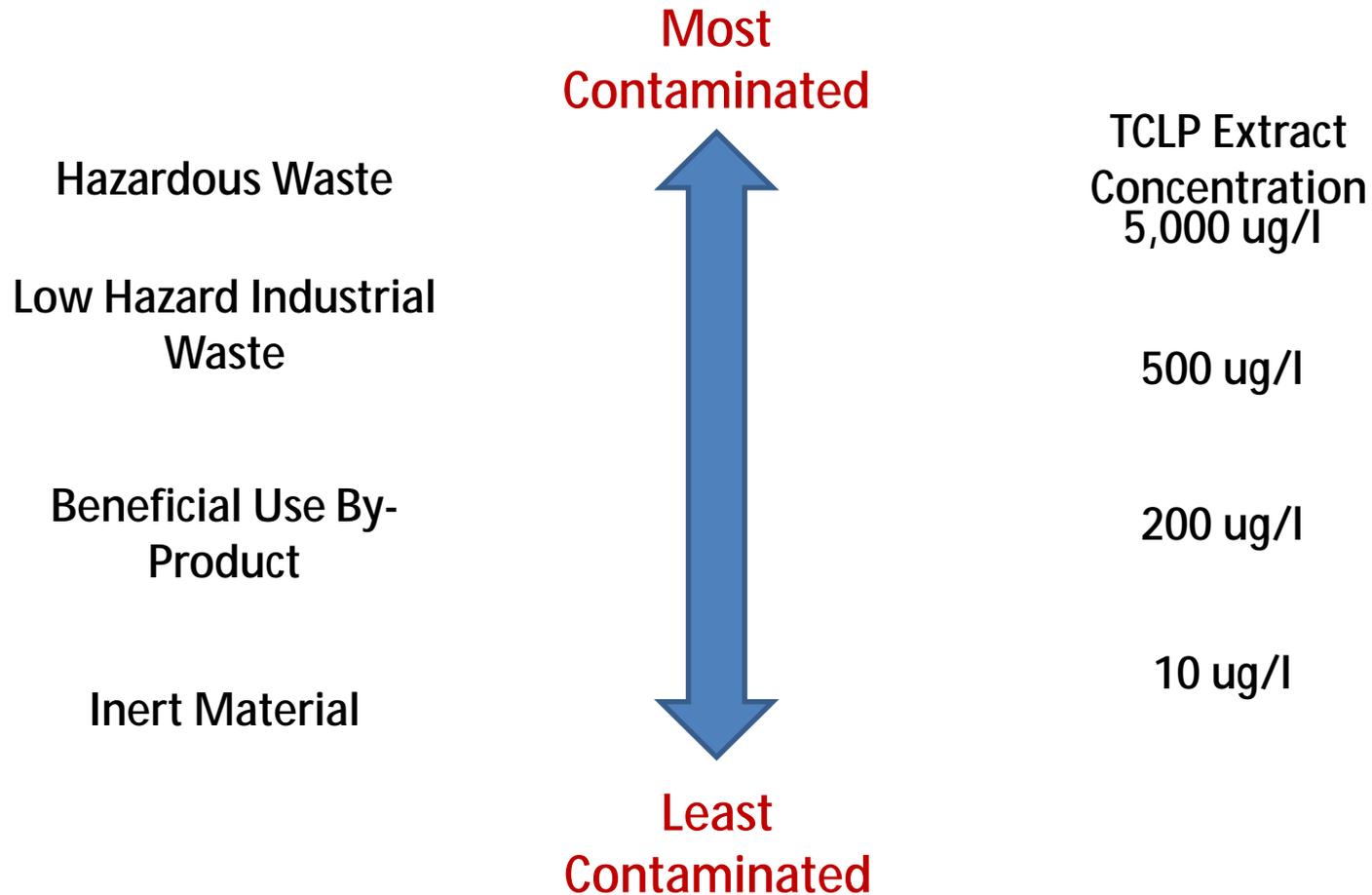
Part 115, Solid Waste Management, Administrative Rules

Contamination Spectrum



Contamination Spectrum

Arsenic Example



Definition of Solid Waste

(Part 115, Section 11506(1))

"Solid waste" means garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, municipal and industrial sludges, solid commercial waste, solid industrial waste, and animal waste.



Solid Waste Exemptions

(Part 115, Section 11506(1))

(f) – slag or slag products directed to a reuser of slag or slag products



(g) – sludges or ashes approved for land application under Rule 111

(h) – materials fed to animals, land applied or composted and land applied under the GAAMPs



Solid Waste Exemptions

(Part 115, Section 11506(1))

(j) – source separated materials*

(l) – coal ashes under certain circumstances

(m) – inert material*

(p) – diverted wastes*

(q) – beneficial use by-products*



Coal Bottom Ash

Source Separated Materials

(Part 115, Section 11506(6))

- Glass, metal, wood, paper products, plastics, rubber, textiles, garbage, or any other material approved by the department that is used for conversion into raw materials or new products.
- Scrap wood, rail road ties, tires, and paint solids used for fuel in an industrial boiler, kiln, power plant, or furnace.



Source Separated Materials

(Part 115, Section 11506(6))

- Gypsum drywall used to produce drywall
- Flue gas desulfurization sludge use in cement or drywall manufacture
- Asphalt shingles used as fuel or as a component in asphalt
- MSW incinerator ash used for alternate daily cover at a licensed landfill
- Utility poles and rail road ties used as post, poles, landscaping



Inert Material

(Part 115, Section 11504(2))

- Rock
- Trees, stumps, and other land clearing debris
- Uncontaminated soil material
- Construction brick, masonry, pavement, and broken concrete that does not contain lead paint
- Drill cuttings from a water supply well



Diverted Wastes

(Part 115, Sections 11503(6) & 11521b)

Household or non-household waste lawful to landfill or incinerate as municipal solid waste

Separated from other waste

Collected and diverted to an environmental preferred management option



Diverted Wastes

(Section 11503(6) & 11521b)

- Hazardous material
- Liquid waste
- Pharmaceuticals
- Electronics
- Batteries
- Light bulbs
- Sharps
- Pesticides
- Thermostats, switches, thermometers, or other devices that contain elemental mercury
- Other wastes approved by the department

Diverted Wastes

(Part 115, Section 11521b)

Diverted waste must be:

- **Collected safely, lawfully & by knowledgeable staff**
- **Collected at a secure location protected from weather, fire, physical damage, and vandals**
- **Not processed except to ensure safe and efficient transport**



Diverted Wastes

(Part 115, Section 11521b)

Diverted waste must be:

- Managed to prevent release
- Stored < 1 year
- Documented (types, volumes, and disposition)
- If non-household, handled to meet additional CESQG and liquid industrial by-product collection requirements



Beneficial Use By-Product

2015 Reuse

Material	Recycled	Disposed	Percent Recycled	Percent Volume Change from 2014	2009 Volumes	Percent Volume Change from 2009
Pulp/paper/wood sludge	96,232	77,453	55%	-6%	39,889	+141%
Shingles	38,672	?	?	+45%	19,650	+97%
Scrap Wood ⁴	115,245	?	?	+4%	26,432	+336%
CKD	11,707	451,448	3%	-73%	29,081	-40%
Foundry Sand	84,406	245,018	31%	-22%	66,870	+26%
Food Processing ³	11,837	?	?	-62%	16,073	-26%
Coal Ash ²	400,000	1,132,112	28%	-11%	174,900	+129%
Drywall	1,895	?	?	-50%	1,048	+81%
FGD	28,573	?	?	-20%	32,328	-12%
Wood Ash ¹	8,172	124,821	6%	+42%	5,592	+46%
Totals ³	796,739	?	?	-10%	411,863	+93%

Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Beneficial Use By-Product Example



Listed Beneficial Use By-Products

- Cement Kiln Duet
- Lime Kiln Dust
- Coal or Wood Bottom Ash
- Coal or Wood Flue Ash
- Dewatered Grinding Sludge
- Flue Gas Desulfurization Material
- Spent Sandblasting Media
- Foundry Sand
- Lime Softening Residuals
- Mixed Wood Ash
- Pulp and Paper Mill Ash
- Pulp and Paper Mill Material
- Soils Washed or Removed from Sugar Beets
- Stamp Sands

Beneficial Use By-Products

Use Options

Beneficial Use 1 means use as aggregate, road material, or building material if it will be bonded or encapsulated by cement, limes, or asphalt.

Beneficial Use 2 means use as construction fill, road base, soil stabilizer, or road shoulder material.

Beneficial Use 3 means application of material as a fertilizer, a soil conditioner under Part 85, or a liming material under 1955 PA 162.

Beneficial Uses By-Products

Use Options

Beneficial Use 4 means use to stabilize, neutralize solid, or treat waste; to treat wastewater or sludge; to stabilize hazardous substances; or to serve as landfill construction material.



Beneficial Use 5 means soil mixtures using foundry sand and organic material to manufacture soil.



Beneficial Use Matrix

USE/MATERIAL	Bonded by lime, cement, or asphalt	Construction fill under impervious surface/Road shoulder	Land Applied	Remediate/treat waste or used as fill at landfills	Soil blending	Flue gas scrubbing reagent
	Beneficial Use 1	Beneficial Use 2	Beneficial Use 3	Beneficial Use 4	Beneficial Use 5	
Wood ash/coal bottom ash			X			
Wood ash/coal ash	X	X		X		
Pulp/paper mill ash	X	X	X	X		
Mixed wood ash	X	X	X	X		
Cement kiln dust/Lime kiln dust	X	X	X	X		X
Foundry sands (ferrous/aluminum)	X	X	X	X	X	
Stamp sands	X	X				
Pulp/paper mill material			X			
Sand blasting media from new products	X	X				
Dewatered concrete grinding slurry	X	X	X	X		
Lime Softening residuals			X	X		
Sugar beet soils			X			
Flue gas desulfurization sludge	X		X			

Beneficial Use 1-5 Conditions Summaries

<p>Michigan DEQ Office of Solid Waste Management</p> <p>This was developed to Solid Waste Management as amended, for the use or more general require</p> <ul style="list-style-type: none"> Section 11502(3) - material that in utiliz Section 11551(1) (a) hazardous waste. Section 11551(1) (b) 3 years, or the amount 75% by weight or volume beginning of the 3-year Section 11551(1) (c) controls wind dispers Section 11551(1) (d) no longer be fit for water quality standard. Section 11551(1) (e) leakage, spillage, or Section 11551(1) (f) than a means to disc Section 11551(2) - subsection (1)(a) st Section 11551(3) - by-products shall c Section 11551(5) - has already been u Section 11551(6) - <p>1-800-662-6278</p>	<p>Michigan DEQ Office of Solid Waste Management</p> <ul style="list-style-type: none"> Section 11502(5) - B (a) Co (i) (ii) (iii) (iv) (b) Re (c) Re Section 11551(1) (f) Section 11551(1) (g) Section 11551(1) (h) Section 11551(1) (i) Section 11551(1) (j) <p>1-800-662-6278</p>	<p>Michigan DEQ Office of Solid Waste Management</p> <ul style="list-style-type: none"> Section 11502(5) - B part 85 or a liming m requirements are met (a) The material is ap management prac (b) The use, placeme (i) Violate part 55 (ii) Cause ground of the Michigan (iii) Cause a violat Section 11551(1) (a) waste. Section 11551(1) (b) years, or the amount by weight or volume of the 3-year period. Section 11551(1) (c) wind dispersal, and p Section 11551(1) (d) longer be fit for 1 or m quality standard, and Section 11551(1) (e) spillage, or wind disp Section 11551(1) (f) means to discard the engineering, industri Section 11551(1) (h) all of the following re (i) The material mill ash, mixed v dust, lime kiln d washed or other public transport <p>1-800-662-6278</p>	<p>Michigan DEQ Office of Solid Waste Management</p> <ul style="list-style-type: none"> Section 11502(6) (a) To stabilize, n licensed under th (b) To treat waste part 31 or the fed owned wastewater (c) To stabilize, n or contaminants; comprehensive e to 9657, or a cert USC 6901 to 699 (d) As constructi Section 11551(1) hazardous waste Section 11551(1) 3 years, or the ar 75% by weight or beginning of the 3 Section 11551(1) wind dispersal, a Section 11551(1) no longer be fit fo water quality star Section 11551(1) spillage, or wind Section 11551(1) means to discard engineering, indu Section 11551(2) (1)(a) shall be ba generator. The in after the date the upon request. Th processes chang <p>1-800-662-6278</p>	<p>Michigan Department of Environmental Quality DEQ Office of Waste Management and Radiological Protection</p> <h3>Beneficial Use 5 Conditions</h3> <ul style="list-style-type: none"> Section 11502(7) - "Beneficial use 5" means blended with inert materials or with compost and used to manufacture soil. Section 11551(1) (a) - The material is not a part 111 hazardous waste or mixed with a hazardous waste. Section 11551(1) (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. Section 11551(1) (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. Section 11551(1) (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. Section 11551(1) (e) - The material is transported in a manner that prevents accidental leakage, spillage, or wind dispersal. Section 11551(1) (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. Section 11551(1) (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 3967, 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: <p>1-800-662-6278 www.michigan.gov/deq 8/20/14</p>
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Beneficial Use 2

Conditions Example

Construction fill on non-residential property

- Placed at least 4 feet above seasonal high groundwater table.
- Must not come into contact with surface water.
- Is covered with concrete, asphalt , or other material approved by the DEQ.
- Less than 4 feet thick unless under a building where there is no limit.

Beneficial Use 2

Conditions Example

Road base or soil stabilizer less than 4 feet thick.

Road shoulder material less than 4 feet thick covered with concrete, asphalt, or gravel.

Stored at the site of generation or use for less than 3 years.

Beneficial Use 2

Conditions Example

Stored in a manner that maintains usefulness, controls wind dispersal, and prevents loss beyond storage area.

Storage does not impact groundwater or surface water.

Must be legitimate use by being used according to generally accepted engineering, industrial, or commercial standards.

Beneficial Use 2

Conditions Example

Generator or broker must notify DEQ of any site that will exceed 5,000 cubic yards of material.

Generator or broker of over 1,000 cubic must report yearly reuse volumes to DEQ.

Beneficial Use 2

Conditions Example

A contractor, consultant, or agent of the owner must tell the owner that beneficial use by-products have beneficial use for Beneficial Use 2 on the property.

The owner of a property must tell the future owner that beneficial use by-products have beneficial use for Beneficial Use 2 on the property.

Low Hazard Industrial Waste

- Coal ash or wood ash
- Cement kiln dust
- Pulp and paper mill material
- Scrap wood
- Water treatment sludges
- Foundry sand
- Mixed wood ash
- Street cleanings
- Asphalt shingles
- New construction drywall
- Chipped or shredded tires
- Copper slag and stamp sands

Relationship of Beneficial Use Statute to Other Environmental Statutes

Part 31 – Water Resources Protection

Part 201 – Environmental Remediation

Part 301 – Inland Lakes and Streams

Part 325 – Great Lakes Submerged lands

Generic Exemptions Issued by the DEQ

- Asphalt Shingle
- Concrete Grinding Slurry
- Drywall
- Ethanol Syrup
- Fish Waste
- Water Softening Lime
- On Farm Anaerobic Digestion
- Scrap Wood
- Tires
- Manure, Paunch, and Pen Waste



Conditions Applicable to all Exemptions

Speculative accumulation – Depending on what the material is there are maximum limits on how long you can pile up the material before using (1 to 3 years).

Air quality – The use/storage of materials cannot violate Part 55 air pollution control regulations.

Groundwater/surface water – The use/storage of materials can not violate Part 31 water resource protection regulations.

Is My Material Exempted?

Go to Part 115 statute, type in your material into the “find” function (example – “foundry sand”)

- Listed beneficial use by-product
- Definition
- Listed low-hazard industrial waste
- Perpetual care fund amounts
- Material can be land applied as a beneficial use 3 by-product
- Material can be blended to produce a soil under beneficial use 5

Receiving Specific Approval From The DEQ

If your material or proposed use is not exempted, you may petition the DEQ through Rule 118a for the following:

- Agricultural Use Approval
- Inert Material Designation
- Source Separated Material Designation
- Beneficial Use By-Product Designation
- Low-Hazard Industrial Waste Designation
- Another Material for Another Use

For additional exemption information contact:

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Department of Environmental Quality

Office of Waste Management and Radiological Protection

Phone: 517-582-3445

E-mail: roskoskeyd@michigan.gov

Web site: Go to www.michigan.gov/deqwaste, then select

“Solid Waste” (white tab on the left) for access to:

- Solid Waste Statutes and Rules
- Exemption Guidance
- Beneficial Use Resources

Questions





THANK YOU FOR PROTECTING
MICHIGAN'S ENVIRONMENT!