



Indiana Department of Environmental Management

Protecting Hoosiers and Our Environment Since 1986



Waste Disposal For Municipalities

Indiana Association for Floodplain
and Stormwater Management
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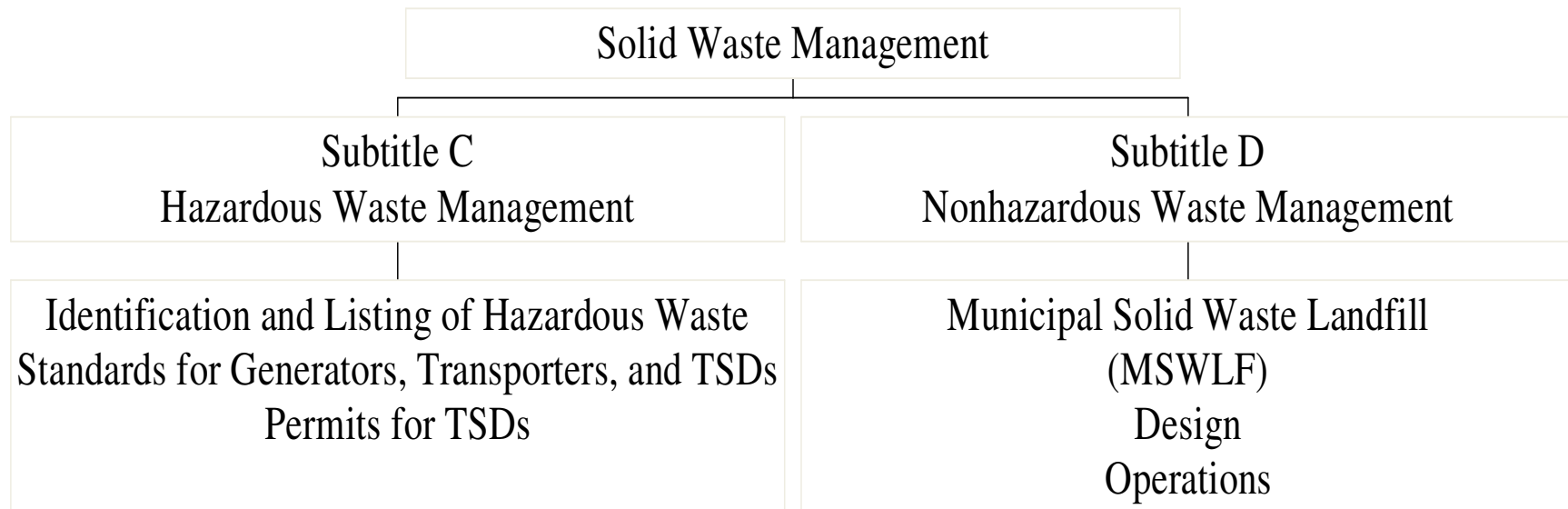
Overview

- Solid Waste Rules
 - Definitions
 - Exclusions
 - Landfill types
- Waste Determinations
- Miscellaneous Materials/Issues



RCRA Overview

Resource Conservation and Recovery Act



A TSD is a hazardous waste treatment, storage, and disposal facility.



Definition of Solid Waste

- **Solid Waste – IC 13-11-2-205**

means any garbage, refuse, sludge from a waste treatment plant, sludge from a water supply treatment plant, sludge from an air pollution control facility, or other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, or agricultural operations or from community activities. The term does not include:

(1) solid or dissolved material in:

(A) domestic sewage; or

(B) irrigation return flows or industrial discharges; that are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act Amendments (33 U.S.C. 1342);

(2) source, special nuclear, or byproduct material (as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.));

(3) manures or crop residues returned to the soil as fertilizers or soil conditioners as part of a total farm operation; or

(4) vegetative matter at composting facilities registered under IC 13-20-10.

- **Is not the same as Subtitle C definition**



Construction/demolition waste

329 IAC 10-2-37

“... solid waste resulting from the construction, remodeling, repair, or demolition of structures. Such wastes may include any of the following:
(1) Scrap lumber (2) Bricks (3) Concrete (4) Stone (5) Glass (6) Wallboard (7) Roofing (8) Plumbing fixtures (9) Wiring (10) Nonasbestos insulation.”



Storage

329 IAC 10-2-181

"Storage" means the retention, containment, or accumulation of solid waste on a temporary basis in such a manner that it does not threaten or potentially threaten human health or impact or potentially impact the environment, for a period of more than twenty-four (24) hours, in such a manner as not to constitute disposal of the waste. It must be a rebuttable presumption that storage of waste for more than six (6) months constitutes disposal.



Where can I find the definitions?

- Indiana Statute (IC 13-11-2-205)
- Federal Hazardous Waste Rules (40 CFR 261)
- Indiana's Solid Waste Rules (329 IAC 10-2-174)
 - Also see: Pollution Control Waste (329 IAC 10-2-137)



Exclusions, General

329 IAC 10-3-1 lists solid waste management activities that are not subject to regulation under the solid waste land disposal facilities rule. Materials excluded under the above rule may not need to go to the landfill.



Reminder

Remember just because something is excluded from the solid waste rule, it does not mean that it is excluded from all rules (e.g., composting, wetlands, zoning, floodways, etc.)



Solid Waste Landfills

- Municipal solid waste landfill (MSWLF)
- Construction/demolition site
- Restricted Waste site
 - Type I
 - Type II
 - Type III
 - Type IV
- Nonmunicipal solid waste landfill



Landfills must:

- Not accept prohibited wastes, including
 - Hazardous waste (unless authorized)
 - Liquid waste
 - Infectious waste
 - Whole waste tires
 - PCBs
 - Lead acid batteries
- Develop a program to detect and prevent disposal of hazardous waste, PCB waste, and unauthorized solid waste.



Generators must:

- Determine the regulatory status.
- Understand the chemical and physical properties of the waste.
- Ensure proper storage, transportation, treatment, and disposal.



Waste Determination Process

- A generator must carry out a waste determination to determine the correct regulatory status.
- This determination may include:
 - Generator knowledge of the characteristics of the waste.
 - Information developed through testing.



What is generator knowledge?

- Information from the manufacturer or supplier of the raw materials.
- Information from reference materials.
- Information describing the process that generates the waste.
- Information describing the raw materials.
- Information describing the principles of science.



Waste Determination Process

- Is it a solid waste?
- Is the waste exempt from the definition of hazardous waste (examples: household waste, coal ash, cement kiln dust)?
- Is the waste a “listed” hazardous waste?
- Does the waste exhibit any “hazardous waste characteristics”?
- Does the waste contain other regulated constituents? (underlying hazardous, asbestos, PCBs, etc.)



What is a solid waste?

- Any garbage, refuse, sludge (from wastewater treatment, water supply, or air pollution control device), or other discarded material.
- May include solid, liquid, semisolid, or contained gas.



What is not a solid waste?

- Domestic sewage
- Nuclear waste
- Manure returned to the soil at the point of generation as part of a farm operation
- Vegetative matter at composting facilities
- Other exemptions found under Subtitle C and Subtitle D



Nonhazardous waste generators must:

- Ensure storage does not violate definition of storage. (329 IAC 10-2-181)
- Ship to a facility permitted to accept the waste or other approved method.

Note: landfills require prior notification and paperwork as part of their screening for hazardous waste.



What is a waste determination?

- A. Test results from a laboratory
- B. A decision on the regulatory status
- C. A waste profile from the landfill
- D. A Material Safety Data Sheet (MSDS)



Who does a waste determination?

- A. The laboratory
- B. IDEM
- C. The landfill
- D. The generator of the waste



All my test results are non-detect (ND) or below detection limit (BDL), so my waste is not regulated.

True

False



Remember...

The designation as a solid waste is based on meeting the definition.

If it does, then it has to be managed under the solid waste rule (i.e., go to a permitted landfill, approval for legitimate use.)

✓ Regulatory status can also be impacted by how it is managed rather than by what it is.



Exclusions, General

Per 329 IAC 10-3-1(1), **Uncontaminated** rocks, bricks, concrete, road demolition waste materials, or dirt can be used as fill in most circumstances.

- Contamination includes chemical compound applied to or that has come in contact with the material.

Exclusions, General

Acceptable for fill



Picture 6. Brick and concrete pile, looking northwest.

Unacceptable for fill





Contamination

When looking for contamination, you will be:

- looking for staining on the soil, concrete, etc.
- considering the source of the material (e.g., industrial site versus residential.)



Exclusions, General

Per 329 IAC 10-3-1(6), untreated natural growth (including leaves, grass, tree limbs and stumps) is excluded from disposal in a permitted landfill.

- This also includes dimensional lumber, or other untreated wood (pallets).
- It does not include engineered wood (particle board, OSB, plywood).

These Are Exempt

- Can go to a composting facility.
- Can be ground and used for mulch or animal bedding.



Natural Growth



PHOTO: JEFF BARNETT-MINSEY

Uncontaminated Pallets

These Are Not Exempt!

- Cannot be buried on-site.
- Cannot go to a compost facility or an agricultural use without IDEM approval.



Particle Board



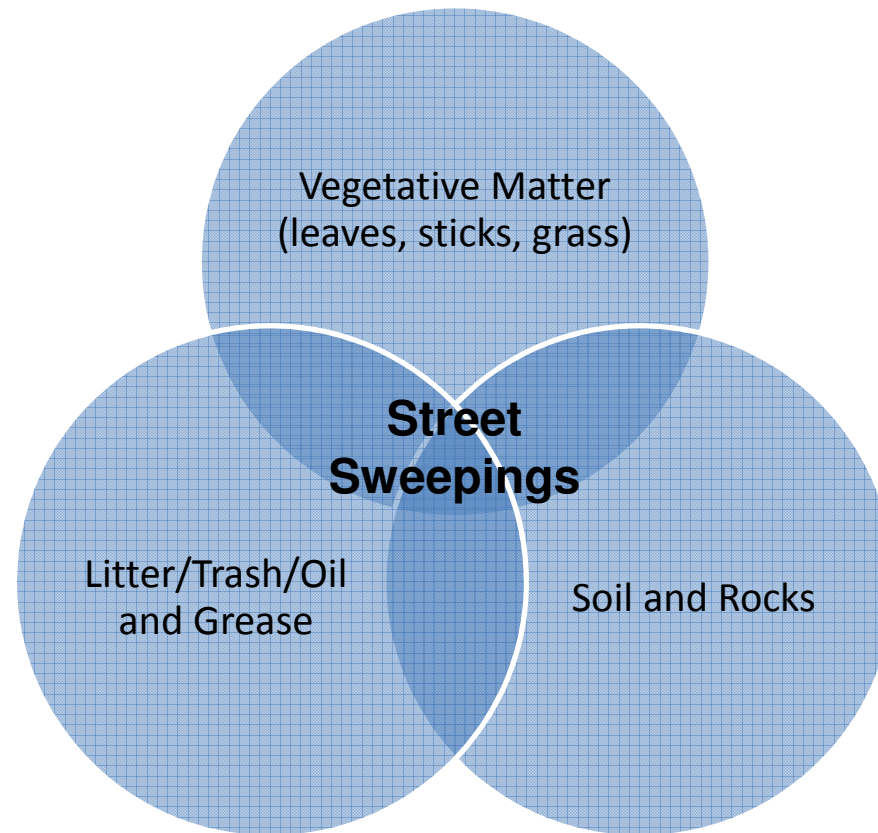
Plywood



OSB



Street Sweepings





Common Components of Street Sweepings

- **Debris:** litter, dirt, grass, leaves, and other vegetative matter.
- **Compounds Associated with Storm Water Run-off:** oil and grease, metals, sediment, automobile fluids, phosphorus and nitrogen from vegetation, and lawn fertilizer.
- **Snow and Ice Abrasives:** salt, sand, other regional appropriate materials.



Municipal Separate Storm Sewer System (MS4)

- MS4 operators must include street sweepings in the written procedures for the proper disposal of waste or materials removed from separate storm sewer systems and operational areas.



Disposal of Street Sweepings

- Street sweepings may be disposed of at a municipal solid waste landfill (MSWLF).
- If disposed of at a MSWLF in Indiana, contact the landfill to find their specific requirements.
- If going out of state, must comply with:
 - Department of Transportation
 - Receiving-state regulations



Storage of Street Sweepings

- Street sweepings should be stored in a manner that prevents run-on, run-off, or fugitive dust emissions.
- Street sweepings should not be stored in an area where the material will wash into wetlands or waterways.



Reuse and Alternative Disposal Options for Street Sweepings

- Street sweepings may be reused or utilized in a manner other than disposing at a MSWLF if the use is in compliance with Indiana's Solid Waste Regulations (329 IAC 10 and 329 IAC 11).
- Street sweepings cannot be used as in standing water or in karst terrain because of the potential for human and environmental contact.



Potential Uses for Street Sweepings

- Bulking agent at an IDEM-permitted composting facility.
- Alternative daily cover (ADC) at a landfill approved to accept street sweepings as ADC.
- Other uses approved through a Legitimate Use Approval from IDEM's Industrial Compliance Section.



Composting

- Facilities that compost vegetative matter must have an IDEM registration.
- Compost that is blended with solid waste must have either a:
 - Site-specific permit, or
 - Marketing and Distribution permit.



Alternative Daily Cover

- The landfill must submit an insignificant modification request
- No fee
- 30-day review by IDEM



Legitimate Use Approval

- Covered under Indiana Solid Waste Rules 329 IAC 10-3-1 (16).
- “Any other use of solid waste approved by the commissioner based on the commissioner’s determination that the use is a legitimate use that does not pose a threat to public health or the environment.”
- Examples: structural fill, substitute aggregate in asphalt or concrete.



Screening of Street Sweepings

- Street sweepings may be screened to remove municipal solid waste.
- All municipal solid waste generated from screening activities must be properly disposed of or recycled, as appropriate.
- Municipalities may screen street sweepings without a solid waste processing facility permit (329 IAC 11) if they conduct the screening on property they own or lease.



Resources for Street Sweepings

- Office of Land Quality, Solid Waste Permit Section
- Office of Land Quality, Industrial Waste Compliance, Legitimate Use Approval
- Street Sweeping Debris Disposal and Management Fact Sheet -- Under revision



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Thank You!

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