

Chapter 8
Permitted Waste Facilities & Operation

I. PROCEDURAL CONTEXT

§ 8.01. Scope

Solid Waste [8.05] ▪ Transfer Facilities [8.05[5]] ▪ Scrap Tires 8.05[6]] ▪ Residual Waste [8.05[7]] ▪ Construction and Demolition Debris [8.06] ▪ Hazardous Waste [8.07] ▪ Medical and Infectious Waste [8.11] ▪ Recyclable Materials [8.08] ▪ Enforcement [8.12 & 8.13] ▪ Coal Combustion Waste [8.14] ▪ Omnibus Regulatory Reform Act of 2012 [8.15]

§ 8.02. Procedural Context—Complying with Waste Management Requirements

The differences in the potential threat that various types of wastes present to human health and the environment result in different statutory and regulatory procedures for the proper management of each type of waste.

II. THE OHIO WASTE CONTROL PROGRAM

§ 8.03. Checklist for Managing Waste Materials

- Identify potential waste producing processes.
- Find the right laboratories for waste analysis.
- Determine nature and characteristics of the waste
- Analyze recycling potential and pollution prevention or material substitution possibilities.
- Set up proper storage area for waste materials.
- Hold employee training and keep good records on handling wastes.
- Set procedures to timely remove and dispose of waste materials.
- Ensure all necessary permits are current.
- Establish recordkeeping procedures to provide validation for waste test results.

§ 8.04. History of Ohio's Waste Regulatory Program

- Before Ohio EPA, ODH and local health boards and departments administered Ohio's solid waste regulatory program.
 - During that time, ODH adopted rules governing the construction and operation of sanitary landfills, while local boards of health and departments issued annual operating licenses and conducted compliance inspections, respectively
- Once Ohio EPA created, the legislature moved solid waste rulemaking authority to Ohio EPA. Now in the "Division of Materials and Waste Management" (its current title).
 - The local health boards and health departments still have regulatory duties (licensing and inspection) under the supervision of Ohio EPA.
 - So, Ohio EPA sets the regulations for governing solid waste and issues construction permits, called permits to install, through its solid waste division. And the local health departments and health boards conduct routine compliance inspections and issue annual operating licenses.

Ohio amended its waste laws to conform with the requirements of the federal Resource Conservation and Recovery Act (RCRA)

- DMWM oversees the proper handling of wastes and promotes reuse and recycling of materials and waste generated in Ohio. This Division is responsible for:
 - issuing permits to regulate hazardous waste treatment, storage, and disposal facilities;
 - issuing of permits, licenses, and or registrations to regulate:
 - solid waste disposal facilities, solid waste transfer facilities, composting facilities, scrap tire facilities and transporters, construction and demolition disposal landfills, infectious waste treatment facilities, infectious waste generators and transporters; administrating state and local planning for long-term solid waste management; inspecting hazardous waste generators and facilities subject to permits, registrations, and licenses; using fees collected from the sale of new tires to clean up scrap tire dumps; using penalty money to address environmental problems at abandoned and orphaned waste sites; and providing technical support to regulated entities, health departments, and citizens.
- In 2011, the clean-up programs moved into DERR. This division oversees:
 - voluntary cleanups; brownfields revitalization; closure and corrective action at sites regulated by hazardous waste permits; federal facilities cleanup; state remedial cleanup; Superfund cleanups; and site assessment and field sampling.
- From 2012 to 2015, Ohio EPA considered revamping its solid waste regulatory program. Even though it did not make as extensive changes as it planned, Ohio EPA, in 2015, excluded source separated recyclables from the flow control authority of Ohio's solid waste management districts, and replaced Ohio's Solid Waste Advisory Council with an entity named the "Ohio Materials Management Advisory Council" to emphasize the shift in emphasis from waste disposal to materials management and re-use.

Alert: In 2016, Ohio EPA created the Division of Environmental Response, Investigation and Enforcement (ERIE) to conduct emergency response actions, which DERR used to handle. Additionally, ERIE provides technical and investigative support for resolving environmental crimes and ensures compliance and enforcement is efficient and consistent across all divisions and district of Ohio EPA.

§ 8.05. Managing Solid Waste

[1] Definitions

"Solid wastes" are "unwanted" residual solid or semisolid material that results from industrial, commercial, agriculture and community operations.

- The determination that a material is "unwanted" is based upon an objective examination of the facts surrounding the generation and handling of the subject materials.
 - Solid waste includes garbage, scrap tires, combustible and noncombustible materials, and street dirt and debris.
 - Excluded materials: Earth or material from construction, mining, or demolition operations; nontoxic fly ash and bottom ash; nontoxic, nonhazardous, unwanted fired and unfired, glazed and unglazed, structural products made from shale and clay products; nontoxic foundry sand; slag; and other substances that are not inimical to public health.

- A “solid waste facility” is any site, location, tract of land or building used for the transfer, incineration, composting, sanitary landfilling, or other method of disposal or transfer of solid waste.
- The Division of Materials and Waste Management oversees the permitting and regulation of new and modified solid waste facilities in Ohio.

[2] Beneficial Use of By-Products

An interesting twist is Ohio EPA’s treatment of what it calls “beneficial use by-products.”

Alert: Ohio EPA enacted new Beneficial Use Program rules in OAC 3745-599, which became effective on March 31, 2017.

The following materials are included in the rules:

foundry sands, drinking water treatment residuals, waste materials burned for energy recovery, sewage sludge (biosolids), incinerator ash and dredged material from federal navigation channels in Lake Erie

[3] Obtaining Solid Waste Facility Permits to Install and Licenses

- Ohio law bans the open burning or dumping of solid waste.
 - Effect is to prohibit the disposal of solid waste in Ohio anywhere except a properly permitted and licensed solid waste disposal facility. And you need a permit & license to have one of those.
 - Remember: No person may construct or operate a solid waste disposal facility without a permit to install issued by Ohio EPA and annually obtaining an operating license issued by the Board of Health of the health district in which the facility is located, respectively.
- Permitting Process - submit application to DMWM, must include the geology & hydrogeology of the site and demonstrate that the new site or expansion will be designed, operated and closed in accordance with regs - to protect public health and safety and the environment. Also must supply financial assurances for proper closure and post-closure.
 - A permit may not be issued unless the applicant demonstrates (all):
 - The proposed facility (or expansion) is not located within the boundaries of a state park or any unit of the natural park system;
 - The permit applicant has exhibited sufficient reliability, competency, and expertise to be entrusted with the operation of a sanitary landfill;
 - Neither the permit applicant nor any of its key employees or major shareholders has been convicted of any one of twenty-one specifically enumerated criminal offenses which include, without limitation, murder, kidnapping, robbery, certain drug-related offenses, and arson;
 - The permit applicant has a history of environmental compliance and is currently in substantial compliance with all applicable environmental laws and regulations.
- Operating license - Applications for the renewal of annual operating licenses for existing facilities must be submitted on or before September 30th of the year preceding the year for which the operating license is sought.
 - Have to pay a fee if you fail to timely renew.
- Transferability - Both permits to install and permits to operate are transferable. An operating license may be transferred to a new owner upon consent of the appropriate licensing authority.

The prospective new owner must comply with the background investigation requirements discussed in § 8.12. The licensing authority may establish new terms and conditions in the transferred license that are considered appropriate to ensure compliance.

Strategic Point: Differences between the construction requirements contained in the rules and the permit to install should be resolved in favor of the requirements identified in the permit.

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[4] Operating Solid Waste Facilities

- What's prohibited - An operator of an Ohio solid waste disposal facility may not accept for disposal certain types of wastes, such as:
 - Asbestos or asbestos containing waste material that is subject to the provisions of NESHP, 40 C.F.R. Part 61, Subpart M;
 - Containerized bulk liquids or non-containerized liquids;
 - Polychlorinated biphenyls (PCB) or PCB containing wastes as defined in 40 C.F.R. Part 761;
 - Materials that are designated as infectious wastes pursuant to OAC 3745-27-01(I)(6);
 - Yard wastes as that term is defined in OAC 3745-27-01(Y)(1);
 - Whole scrap tires (or shredded scrap tires) as defined in OAC 3745-27- 01(S)(6);
 - Hazardous waste as defined in OAC 3745-27-01(H)(1);
 - Low level radioactive wastes as that term is defined in R.C. 3734.27.42
 - In 2012, the Ohio General Assembly banned the comingling of aluminum production wastes with other solid wastes at sanitary landfills in Ohio. See § 8.15 infra.
- Daily-to-day Operations - The operation of a solid waste landfill is subject to general requirements concerning noise, dust and odor control, the suppression or control of insects, rodents and other vectors, and litter control, as well as specific requirements concerning the following:
 - Daily cover;
 - Intermediate cover;
 - Final cover;
 - Waste placement;
 - Surface water management;
 - Leachate management;
 - Daily inspections and log keeping;
 - Annual reporting; and
 - Closure and post-closure.
- Closure & Post-Closure - The owner or operator of a solid waste landfill must keep a copy of the plan for the final closure and post-closure care of the landfill in the operating record for the landfill.

[5] Solid Waste Transfer Facilities

- A “solid waste transfer facility” is used to transfer solid wastes from one vehicle or container to another for eventual transport to a disposal facility. This excludes scrap tires.
- Permitting Process - Very similar solid waste facilities. But added that transfer stations are subject to siting criteria prohibiting the location of facilities in a floodplain and within 200 feet of any surface waters.

- Operational requirements include:
 - Maintaining access roads;
 - Confining waste handling to the smallest practical area; and
 - Controlling vectors, noise, odors, and dust so as not to create a nuisance or health hazard.

Warning: Transfer facilities may only accept what is allowed in a landfill.
- Closure - Specific closure requirements in the regs.

[6] Managing Scrap Tires as Solid Waste

“Scrap tires” are unwanted or discarded tires that have been removed from their original use by the original owner or manufacturer. Scrap tires include pieces as well as the whole tire.

- Transportation - Ohio law prohibits the transportation of scrap tires for storage, processing, or disposal except to one of the following facilities: (1) a scrap tire recovery facility duly authorized under Ohio law to accept such scrap tires; (2) a scrap tire monocell or monofill duly licensed under Ohio law; (3) a scrap tire storage facility duly licensed under Ohio law; (4) a properly licensed solid waste incinerator or energy recovery facility; (5) a facility located within the state of Ohio that will beneficially use the scrap tires, or (6) a facility located outside the state of Ohio legally permitted to accept scrap tires for collection, storage, disposal, processing, or beneficial use.
 - Ohio law prohibits the transportation of scrap tires except by a transporter that has obtained a certificate of registration from Ohio EPA, and authorizes Ohio EPA’s Director to establish by rule a manifesting system for tracking the transportation of scrap tires in Ohio.
- Storage - Ohio law also confers upon Ohio EPA’s Director the authority to create a comprehensive notification, registration and/or permitting system for scrap tire collection, storage or recovery facilities, scrap tire monocells and monofills, and facilities that beneficially use scrap tires. Ohio law also gives the Ohio EPA Director the power to adopt rules governing the design, construction, operation and/or closure of those facilities.

Strategic Point: The beneficial use of up to 100 scrap tires is allowed without Ohio EPA approval, unless the scrap tires are causing a public nuisance or potential harm to the environment. There are “pre-approved” uses that do not require Ohio EPA approval prior to the implementation of the construction project.

[7] Managing Residual Waste

“Residual solid waste” is a classification of solid waste that includes:

- Certain wastes generated by fuel burning operations that use coal as the primary fuel;
- Certain wastes from foundry operations such as air pollution control dust and wastewater treatment plant sludge;
- Certain wastes from pulp and papermaking operations;
- Certain wastes from steelmaking operations such as air pollution control equipment;
- Certain wastes from wastewater treatment plant operations;
- Certain wastes from finishing operations;
- Wastes from gypsum processing plant operations;
- Wastes from lime processing operations; and
- Wastes from portland cement operations.

- Residual solid wastes are subject to specialized rules that allow a solid waste landfill to be licensed as a residual waste landfill facility where one or a combination of residual solid wastes are disposed of exclusively.

§ 8.06. Managing Construction and Demolition Debris

[1] C&DD Is Material Resulting from the Alteration, Construction or Destruction of Manmade Structures

- “Construction and Demolition Debris” (C&DD) is material resulting from the alteration, construction, destruction, rehabilitation, or repair of manmade structures.
- Chapter 3714, the Ohio EPA Director the authority to adopt rules governing the design, construction, operation and closure of construction and demolition debris (“CDD”) landfills, and the power to issue orders to abate violations of R.C. Chapter 3714 and the rules adopted thereunder. Same as solid waste - Ohio EPA issues permits, boards of health operating license

Exceptions: C&DD does not include materials that are considered solid, infectious or hazardous waste, materials from mining operations, nontoxic fly ash, spent non-toxic foundry sand, slag, and reinforced or non-reinforced concrete, asphalt, building or paving brick or stone that is stored for a period of less than two years for recycling.

- In addition to C&DD, three types of solid wastes are allowed to be disposed of in a C&DD landfill:
 1. Incidental packaging materials associated with construction materials;
 2. Tree stumps, trunks and clean branches that are larger than four inches in diameter; and
 3. Asbestos materials where an air pollution control permit has already been issued to the C&DD facility.

[2] Obtaining License for C&DD Facility

- The local health department may issue the license where it has been granted the authority to operate the solid waste program on behalf of the Ohio EPA.

Strategic Point: The licensing authority may issue an exemption from the C&DD licensing requirements where the proposed disposal is at a location unlikely to adversely affect the public health, safety or the environment, or create a fire hazard. Unlike Ohio’s solid waste regulatory program, Ohio’s C&DD regulatory program does not on its face require the disposal of C&DD solely at a properly licensed C&DD facility.

[3] Complying with C&DD Facility Siting and Operating Requirements

Warning: C&DD disposal facility siting requirements prohibit the construction of a C&DD facility in a 100-year floodplain or within the boundaries of a sole source aquifer.

- C&DD facilities must follow design, operating and closure requirements such as a leachate management limiting the level of leachate to one foot, and a two-layer cap system. Operating requirements include, but are not limited to, keeping records that identify waste loads that were accepted or rejected, managing any leachate outbreaks, and monitoring groundwater where the disposal facility is located near wells or an aquifer. Closure provisions include requirements to minimize maintenance and the formation and release of leachate.

[4] Complying with Legislation Imposing More Stringent Requirements

- In December 2005, legislature amended R.C. Chapter 3714. Required Ohio EPA to establish standards and procedures for the issuance of permits to install (PTIs) for new and modified C&DD facilities. The legislation also imposed more stringent construction and operating requirements on C&DD facilities.
- Ohio EPA's first set of implementing regulations became final on August 31, 2007, modifying the C&DD rules set forth at OAC 3745-400. Under the 2007 rules, an owner or operator of a C&DD landfill must obtain an operating license from the appropriate authority, Ohio EPA, or a delegated Health District.
 - Detailed design plans and plan drawings must be submitted as part of the license application for a new or modified CDD landfill, including specifications for a recompacted soil liner, an elaborate cap system, groundwater monitoring system, and leachate collection system.
 - Additionally, a "site characterization" report is required, demonstrating through an analysis of hydrogeologic data, the appropriateness of the soil liner and groundwater monitoring plans. Quarterly groundwater monitoring will be required initially, followed by annual sampling. Following construction of the landfill, the owner/operator must submit a "construction certification report," signed off on by a professional engineer.
 - Effect of this change was to bring CD&D permitting and operations more in line with solid waste.
- The 2005 amendments to R.C. Chapter 3714 also imposed certain disclosure statement and background investigation requirements on applicants, which are similar to the requirements for owners and operators of solid and hazardous waste facilities (see § 8.12 below).

[5] C&DD Rulemaking

- In January 2010, Ohio EPA released a second set of C&DD rules in draft form for stakeholder comment which it claimed would minimize the environmental impacts from new and expanding construction and demolition debris landfills. Public comments were taken through April 1, 2011.
- To gather background data for rulemaking, in 2011 Ohio EPA began hydrologic investigations at various operating C&DD landfills. The purpose of this evaluation was to provide the Agency with information necessary to evaluate whether it should include additional or expanded groundwater monitoring rules in its pending C&DD facility rule-making. As a result rule revisions included extensive siting, design, and operating requirements to prevent groundwater problems. New and expanding C&DD landfills would be required to obtain a permit prior to construction, as well as an annual operating license. These include:
 - more stringent engineering requirements including more elaborate liners caps;
 - more extensive ground water monitoring requirements specifically designed to detect if there are any impacts from the operation of the facility;
 - more stringent odor monitoring requirements on a daily basis and addressing odors that are noted, including maintaining a log of odor complaints from neighbors;
 - inspecting for indications of surface and subsurface fires and addressing those that are noted;
 - and providing five years of post-closure care, as well as adequate financial assurance to provide environmentally protective closure and postclosure care of the landfill.

- After imposing an initial cut off date of April 1, 2011, for the submittal of public comment on its proposed C&DD rules and after substantial push-back from the regulated community, Ohio EPA extended the public comment period several times in 2011. Final rules governing facility construction, final closure, and post-closing care, financial assurance of closure and post-closure care, and wording of financial instruments became effective on August 1, 2012. New leachate control rules became final and effective on January 1, 2013.

§ 8.07 Managing Hazardous Waste

[1] Hazardous Waste Is Waste That Is Specifically Listed as Such or That Has Hazardous Waste Characteristics

- A “hazardous waste” is a substance that, once it becomes waste, is either specifically listed in the regulations as a hazardous waste (called a “listed” hazardous waste) or which testing discloses is toxic, ignitable, corrosive, or reactive (called a “characteristic” hazardous waste).
- Generally, mixing a characteristic hazardous waste with a non-hazardous waste produces a hazardous waste, only if the resulting mixture demonstrates the hazardous characteristic upon testing. In contrast, mixing a listed hazardous waste with a non-hazardous waste produces a hazardous waste.
- A material becomes a “waste” when discarded.
 - Interesting note: case law in Ohio that holds that a retailer did not violate Ohio’s hazardous waste laws when it transferred ownership of materials that did not qualify as a hazardous waste at the time of transfer to a recycling company, but that later became a hazardous waste when the recycling company failed to recycle or purposely dispose of them.
- USEPA delegated Haz Waste management to Ohio EPA DMWM is responsible for implementing the hazardous waste management program in Ohio.
 - That program involves the regulation of hazardous wastes from the moment the relevant activity creates the waste until it reaches its final disposition. This comprehensive hazardous waste regulatory structure, now administered in Ohio by DMWM, is commonly called the “cradle-to grave” system, as the regulations address hazardous wastes from their initial generation to the point of waste disposal, and all handling in between. The rules apply to all facilities that generate, transport, treat, store, or dispose of hazardous waste.

[2] Obtaining Hazardous Waste Facility Permit

- The establishment or operation of a hazardous waste facility requires the submission of an application for an installation and operation permit. The application must contain detailed plans and specifications.

Warning: The applicant must also engage in an extensive public information process that includes notifying the legislative authority where the facility is proposed to be located. The applicant then must hold at least one public meeting in the proposed location of the facility to inform the community of the proposed hazardous waste management activities.

- A hazardous waste facility must follow siting criteria that does not allow the location of a facility within 2000 feet of the following:
 1. Any residence, school, hospital, jail, or prison;

- 2. Any naturally occurring wetland; and
 - 3. Any floodplain where the facility is not designed, constructed and maintained to prevent a washout in the event of a 100-year flood.
- Each aspect of the actual operation of a hazardous waste facility is subject to extensive requirements that include everything from personnel training and the equipment required to be present at a facility to the required aisle space (for storage facilities), reports and recordkeeping that must be maintained by a facility.
 - Hazardous waste facilities must also follow detailed closure and post-closure requirements that include the development of a written plan minimizing the need for further maintenance and the installation of controls to limit or eliminate threats to human health and the environment as well as the post-closure escape of hazardous waste and contaminated run-off.

[3] Shale and Clay Product Wastes

- Prohibits a person from using, managing, or disposing of certain structural products created from clay or shale in a manner resulting in any of specified occurrences, including:
 - An exceedance of a water quality standard;
 - An exceedance of a primary or secondary maximum contaminant level established for safe drinking water purposes; or
 - An emission of an air contaminant;
- Generally prohibits a person from placing, accumulating, or storing for further processing structural products in specified locations, including within the boundaries of a sole source aquifer;
- Authorizes the Director or the Director's authorized representative to enter property to inspect and investigate conditions or examine records relating to alleged noncompliance with the above prohibitions and to apply for a warrant permitting the entrance and inspection or examination; and
- Excludes certain shale and clay products from regulation as solid wastes under R.C. Chapter 3734.
- H.B. 64 also prohibits a person from placing, accumulating, or storing for further processing such structural products in any of the following locations:
 - (1) Within the boundaries of a sole source aquifer;
 - (2) Within the boundaries of a source water protection area; or
 - (3) Above an unconsolidated aquifer capable of yielding at least 100 gallons per minute.

[4] Complying with Hazardous Waste Generator Requirements

- Hazardous waste generators are categorized by the amount of hazardous waste they create.
 - "Conditionally exempt small quantity generators" (CESQGs) generate less than 100 kilograms (220 pounds) of hazardous waste in a month. A CESQG does not have to obtain a generator identification number from USEPA, but must properly evaluate the generated wastes and keep the information on file for review to demonstrate proper treatment and disposal of its hazardous wastes.
 - A CESQG can mix hazardous waste with used oil if the used oil will be burned for energy recovery. The used oil will be subject to the regulatory requirements for used oil.

- “Small quantity generators” (SQGs) generate 100 to 1000 kilograms (220–2,200 pounds) of hazardous waste in a month. An SQG cannot keep more than 6,000 kilograms (13,228 pounds) on site. Middle requirements and record keeping.
- An LQG must comply with the full panoply of hazardous waste requirements, including waste manifests, written waste management practices, dating and marking of storage tanks; inspections; personnel training; preparedness and prevention measures; contingency planning; and recordkeeping and annual reporting. An LQG also faces more restrictive limitations on the total number of days that waste can be accumulated on site without a storage permit before being shipped for disposal (90 days as opposed to 180 days for a SQG).

[5] Complying with Hazardous Waste Transporter Requirements

- A hazardous waste transporter that either begins or ends the transportation of hazardous waste in the state must register with and obtain a uniform permit from the Public Utilities Commission of Ohio (PUCO). A transporter must also obtain a USEPA identification number from Ohio EPA.
- A manifest must accompany loads of hazardous waste

[6] Avoiding Violations That Frequently Occur

Common errors - waste generators often fail to evaluate all the waste streams present at a facility; hazardous waste containers will not have labels identifying that the materials are hazardous wastes; accumulation dates are absent or generators have exceeded maximum allowable storage periods; hazardous waste containers will be open or in poor condition; failure to train facility personnel (and document the training); and failure to inspect and log waste storage areas.

§ 8.08. Managing Recyclable Materials

- “Recycling” involves the use, reuse or reclamation of a material. Hazardous wastes that are recycled are known as “recyclable materials.” Individuals that handle recycled hazardous wastes must follow the same regulatory requirements that exist for generators, transporters and storage facilities (§ 8.07).
- Generators and transporters that handle recycled hazardous wastes must notify Ohio EPA that they are engaged in a regulated waste activity. The owners and operators of facilities that store recyclable materials before they are recycled must also obtain a hazardous waste installation and operation permit.
- Certain recyclable materials are governed by the requirements for hazardous waste boilers and industrial furnaces, where applicable, as well as the permit requirements in the hazardous waste management system.

These recycled materials are hazardous wastes that are:

1. Used in a manner that constitutes disposal;
2. Burned for energy recovery in boilers or industrial furnaces;
3. Used as a source to reclaim precious metals; or
4. Reclaimed spent lead-acid batteries.

But exempt from the hazardous waste permit requirements:

Industrial ethyl alcohol that is reclaimed;

Scrap metal;

Recycled used oil that was a hazardous waste only because it exhibited a hazardous waste characteristic; and

Certain types of fuel produced from oil bearing hazardous wastes from

petroleum refining production and transportation activities.

- Generators recycling the material on site must notify USEPA, have proper containment, and may not engage in “speculative accumulation”; furthermore, the recycling must be “legitimate.”
 - “Legitimate” recycling is that which provides a useful contribution to the recycling process or to a product or intermediate of the recycling process, and the recycling process must produce a valuable product or intermediate.

§ 8.09. Managing Solvent Contaminated Wipes

[1] History

- On July 13, 2013, USEPA published a final rule modifying federal hazardous waste rules pertaining to wipes contaminated with certain solvents which, under prior law, would have been managed as hazardous waste. Specifically, USEPA’s final rule revises the regulatory definition of “solid waste” to conditionally exclude solvent-contaminated wipes that are cleaned and reused, and revises the federal regulatory definition of “hazardous waste” to conditionally exclude solvent contaminated wipes that are disposed. USEPA explained its action as follows: “The purpose of this final rule is to provide a consistent regulatory framework that is appropriate to the [low] level of risk posed by solvent contaminated wipes” The exclusions set forth in the final rule require that no free liquids are associated with the wipes, and are contingent upon the generator complying with certain container, labeling, accumulation time, and record keeping requirements specified in the final rule.
- Ohio’s rule is now functionally identical to the federal rule.
- In Ohio, reusable and disposable wipes are excluded from regulation under Ohio’s hazardous waste rules when certain conditions are met. Generators who fail to follow the requirements of this rule will lose the conditional exclusions from the definition of solid waste or hazardous waste, and may become subject to the full requirements of the solid and hazardous waste regulations. The conditions that a generator must meet are outlined below.

[2] Solvent Contaminated Wipes Covered by This Exclusion

Following are the solvent contaminated wipes covered by this exclusion:

Wipes that contain one or more F001–F005 listed solvents listed in OAC rule 3745-51-31 or the corresponding P- or U- listed solvents.

The solvents found in OAC rule 3745-51-31 include: Acetone 1,2-Dichlorobenzene Methanol Benzene Methyl isobutyl ketone Methyl ethyl ketone n-Butanol Ethyl acetate Toluene Chlorobenzene 1,1,2- Trichloroethane Methylene chloride Creosols Ethyl benzene Xylenes Cyclohexanone 2-Ethoxyethanol Trichloroethylene* Tetrachloroethylene Isobutyl alcohol (*For reusable wipes only.)

[3] What the Exclusion for the Laundering of Solvent Contaminated Wipes Does Not Include

- The exclusion for the laundering of solvent contaminated wipes does not include:
 - Wipes that contain listed hazardous waste other than solvents;
 - Wipes that exhibit the characteristic of toxicity, corrosivity, or reactivity due to non-listed solvents or contaminants other than solvents.

[4] Disposal of Solvent Contaminated Wipes

- Under OAC 3745-51-04(B)(18) (Hazardous Waste Exemption), solvent contaminated wipes, without trichloroethylene, that are sent for disposal, are not hazardous wastes from the point of generation provided the following conditions are met:

- (1) The wipes, when accumulated, stored, and transported, must be contained in containers that are:
 - (i) closed; (ii) non-leaking; and (iii) capable of holding free liquids. [plastic can liner okay if it meets these three conditions.]
- (2) Labeling: Containers must be labeled “Excluded Solvent- Contaminated Wipes.”
- (3) 180 day accumulation max from Day 1 into the container.
- (4) Must not contain free liquids at the point they are sent off-site.
- (5) Free liquids must be managed according to hazardous waste rules.
- (6) Documentation required: Name, address, 180 limit, describe how no free liquids met
- (7) Disposal in one of the following:
 - Municipal Waste or Industrial Waste Landfill that is permitted, licensed, or otherwise authorized by Ohio and meets the requirements of rule 3745-27-08 or 3745-29-08 of the Administrative Code; or
 - Is permitted, licensed, or otherwise authorized by another state that has this exemption; or
 - Disposal in a permitted hazardous waste landfill; or
 - A Municipal Waste Combustor regulated under Section 129 of the Clean Air Act; or
 - A Hazardous Waste Combustor, Boiler, or Industrial Furnace regulated under OAC rules 3745- 57, 68 or 266.

§ 8.10. Managing Electronic Waste

[1] General Requirements

- Electronic waste or “e- waste” is a term used to describe old, end-of-life electronic appliances and devices. Examples of “e-waste” include:
 - Computers;
 - Monitors;
 - Fax machines and copiers;
 - Television sets;
 - Stereo/audio equipment;
 - Phones (including cell phones);
 - Personal digital assistants (PDAs);
 - Game consoles; and
 - Electronics from industrial sources.
- As the use of electronics has proliferated over the last 50 years, the volume of used, obsolete products grows. In the year 2000, the National Safety Council projected that nearly 250 million computers will become obsolete in the next five years and mobile phones will be discarded at a rate of 130 million per year after 2005. “eCycling” is reusing or recycling these consumer electronics.

Why we manage this waste type: Computer monitors and older TV picture tubes contain an average of four pounds of lead. In addition to lead, electronics can contain chromium, cadmium, mercury, beryllium, nickel, zinc, and brominated flame retardants.

- When electronics are not disposed of or recycled properly, these toxic materials can present an environmental risk. When a business properly recycles electronic equipment (including donating it for reuse), Ohio EPA does not regard it as a waste. Therefore, it is not regulated under Ohio’s hazardous waste laws. However, if a business does not recycle discarded electronic equipment, or does so improperly, it is Ohio EPA’s position that so-called e-waste must be evaluated to

determine if it exhibits a characteristic of hazardous waste (ignitability; corrosivity; reactivity; or toxicity) Ohio Administrative Code Sections 3745-51-20 through 3745-51-24 describe these characteristics. In particular, e-waste may exhibit the characteristic of toxicity (OAC Section 3745-51-24) for lead. E-waste that will be disposed which exhibits a hazardous characteristic must be managed according to Ohio's hazardous waste regulations.

- Specifically, Ohio EPA classifies used electronic equipment exhibiting a characteristic of hazardous waste as a "characteristic by-product." Ohio EPA classifies unused electronic equipment (defective) as off-specification commercial chemical products. OAC Section 3745-51-02(C)(3) states that characteristic by-products and off-specification commercial chemical products are not wastes when reclaimed. Therefore, if the e-waste is recycled, the recycler is recovering material of value from the equipment being recycled, and the recycling processes 75% of the national product at the beginning of the year before the end of the year, the recycler is not "speculatively accumulating," and the discarded electronics are not considered a waste.

It is worth noting that Ohio's hazardous waste rules do not require a facility that properly recycles electronic equipment (e.g., does not speculatively accumulate broken cathode ray tubes

[2] Cathode Ray Tube (CRT) Waste

A specific subset of e-waste, discarded cathode ray tubes (CRTs), has gained special regulatory attention. Because CRT glass typically has enough lead in it to be a characteristically hazardous waste when discarded, USEPA has adopted an exclusion from its hazardous waste rule specifically for CRT waste.

Under the CRT exclusion (also known as USEPA's "CRT rule"), used CRTs and CRT glass being recycled that meet the requirements of the exclusion are conditionally excluded from the hazardous waste regulations. As long as the used CRTs and CRT glass meet the requirements of this exclusion, they are not considered by USEPA to be a solid or hazardous waste under the Resource Conservation and Recovery Act (RCRA) (40 C.F.R. § 261.4(a)(22)).

- The federal CRT exclusion covers three different types of CRT materials:
 - Used, intact CRTs—CRTs whose vacuum has not been released.
 - Used, broken CRTs—CRT glass removed from the CRT housing or casing whose vacuum has been released. This category includes unprocessed CRT glass.
 - Processed CRT glass—CRT glass that has been sorted in preparation for recycling.
- Under the federal CRT exclusion, different requirements apply to different categories of CRT materials, especially regarding the export of CRTs to a foreign country.
- Used, intact CRTs exported to a foreign country for reuse are subject to a one-time export notification (40 C.F.R. § 261.41).
- Used CRTs (either intact or broken) exported to a foreign country for recycling are subject to export notice and consent requirements (40 C.F.R. § 261.40 and 40 C.F.R. § 261.39(a)(5), respectively). Exporters must send the export notice to USEPA at least 60 days prior to export.
- Residential exception: In Ohio, there is an exclusion from the hazardous waste rules for CRTs that come from a residential household. Household CRTs are not subject to the hazardous waste rules if they are kept separate from regulated CRTs.
- Business CRTs:
 - Used intact CRTs destined for recycling from businesses are conditionally excluded from the definition of waste as long as they are not speculatively accumulated (defined in OAC rule 3745-51-01) by the collector or the processor.

- Used intact and/or broken CRTs from businesses destined for disposal are subject to regulation as a hazardous waste because Ohio EPA believes there is a likelihood that glass from broken CRTs will exhibit the toxicity characteristic for lead.
- Used broken CRTs and processed CRT glass from businesses in Ohio undergoing recycling are excluded from Ohio’s definition of waste if they are managed in accordance with OAC 3745-51-39 as outlined below:
 - A. Used broken CRTs are not wastes if they meet the following conditions:
 - (1) They are stored in a building (with a roof, floor and walls) or placed in a container that is constructed, filled, and closed to minimize releases to the environment of CRT glass;
 - (2) Each container is labeled or marked clearly with one of the following phrases: “Used cathode ray tube(s)—contains leaded glass” or “Leaded glass from televisions or computers,” and is labeled “Do not mix with other glass materials”;
 - (3) They are transported in a container meeting the above requirements;
 - (4) Not accumulated speculatively as defined in OAC rule; and
 - (5) If the glass is used as an ingredient in a product that is placed on the land or used as a substitute for a product that will be used on the land
 - B. Used, broken CRTs undergoing “CRT processing” are not wastes if they meet the following requirements:
 - (1) The waste is not speculatively accumulated;
 - (2) All processing activities must be performed within a building with a roof, floor, and walls; and
 - (3) No activities are performed that use temperatures high enough to volatilize lead from CRTs.

Note: clock runs on speculative accumulation for CRT:

-storage of broken or unbroken CRT before the funnel glass and the tube glass are separated.

-after the tube glass has been separated, sized, and stored (processed) prior to further recycling.

- Processed glass from used CRTs destined for recycling at a CRT glass manufacturer or lead smelter after processing is not a waste in Ohio unless it is accumulated speculatively. In addition, processed CRT glass that is used as an ingredient to make a product without being reclaimed is excluded unless it is used in products that are placed on the ground in a manner constituting disposal or are accumulated speculatively.

§ 8.11. Managing Medical and Infectious Wastes

[1] Infectious Waste Is Waste Containing or Possibly Containing Infectious Agents

So, before HB 294 the Omnibus Regulatory Reform Act, Ohio EPA used to have jurisdiction over a large portion of infectious waste in Ohio. And the book covers all that.

To understand what Ohio EPA manages now, click here:

<https://epa.ohio.gov/portals/34/document/guidance/SB294FactSheet.pdf>

[2] Infectious Waste Generator Requirements

- A “small generator of infectious waste” generates less than 50 pounds of infectious waste per month. No registration required.
 - Small generators must place all discarded hypodermic needles, syringes, and scalpel blades and infectious wastes associated with such “sharps” in a “sharps container.”

Specimen cultures and cultures of viable infectious agents must either be rendered non-infectious on the premises where generated or be rendered non-infectious at an off-site facility owned by the generator or at a properly licensed facility. Small generators also must maintain records of waste generation.

- Large generators of infectious wastes - generate 50 pounds or more and submit a registration application to Ohio EPA.
 - must segregate infectious wastes, place all “sharps” in a “sharps container,” place all non-sharps infectious waste in red or conspicuously labeled plastic bags labeled with the international biohazard symbol, and dispose of the infectious waste at a licensed disposal facility after treatment rendering the wastes non-infectious. Large generators also must develop a spill containment and cleanup procedure.

[3] Infectious Waste Transporter Requirements

Ohio EPA no longer regulates transportation requirements. PUCO does, under USDOT.

[4] Infectious Waste Treatment Facility Requirements

- A permit to install must be submitted to the Director of Ohio EPA for review by DMWM to establish or modify an infectious waste treatment facility. An operating license must also be obtained from the board of health (or the Director of Ohio EPA where the facility will be located in a health district where the board of health is not approved to administer the infectious waste program).

A treatment facility handling infectious waste must follow operational standards that prescribe specific treatment options such as:

Incineration;
Autoclaving;
Chemical treatment using a sodium hypochlorite solution for cultures;
Applied heat encapsulation for sharps;
Chemical treatment using peracetic acid and grinding; or
Alternative treatment technologies that have been approved by the Director of Ohio EPA.

§ 8.12. Complying with Environmental Background Investigation Process

- Individuals or entities that apply for or already have a solid waste, infectious waste, or hazardous waste facility permit, and prospective owners of off-site waste facilities within the state must file disclosure statements with the Director of Ohio EPA and the Environmental Background Investigation Unit (EBIU) of the Ohio Attorney General’s Office.
 - The Attorney General will send a written notice to existing permit holders who have not filed a disclosure statement specifying the date by which a disclosure statement must be filed. Annual updates are required. The new owner of an existing facility must file a disclosure statement at least days before the change in ownership.
 - Additionally, any individual required to be listed in the disclosure statement shall be fingerprinted for identification and investigation purposes.
- The EBIU conducts background investigations on owners and operators of solid, infectious and hazardous waste facilities. Then sends report to Ohio EPA within 180 days after receipt of the disclosure statement. The Director will then approve or deny a permit to operate based, in part, upon the findings contained within the EBIU report concerning the applicant’s environmental compliance, competence, reliability, and criminal history.

- The Director may **not** issue a permit or license
 - (1) unless the Director finds that the applicant has exhibited “sufficient reliability, expertise and competency” to operate a solid waste facility;
 - (2) if any individual or business concern required to be listed in the disclosure statement has been convicted of any one of the listed serious crimes (e.g., murder, kidnapping, extortion, theft, etc.) or of knowingly or recklessly committing a criminal violation of a federal or state environmental law, unless the individual or business concern has affirmatively demonstrated rehabilitation; or
 - (3) unless the Director finds that the applicant has a history of compliance with environmental laws in Ohio and other jurisdictions.
- When ownership change proposed, the Director must disapprove the change of ownership if the disclosure statement or background investigation report contains information that if submitted with a permit application would require denial of the permit pursuant to the criteria described above. The Director’s final decision appealable to ERAC
- Periodic disclosure updates must be filed after the initial submission of disclosure statements and EBIU investigative report to the Director of Ohio EPA. The Ohio AG via the FBI must perform a criminal background investigation every three years on every officer, director, partner, or key employee of an applicant, permittee, or prospective owner of an interest that collects, transfers, transports, treats, stores, or disposes of solid wastes, infectious wastes, or hazardous waste or processes solid wastes that consist of scrap tires. These background checks would presumably coincide with the filing of updated disclosure statements which also to take place every three years.

§ 8.13. Judicial and Administrative Enforcement Considerations (already covered)

§ 8.14. Coal Combustion Residues

- Coal combustion waste (CCW) is inorganic material that remains after pulverized coal is burned for electricity production. Industry estimates that as much as 136 million tons were generated in 2008, when a breach in an impoundment pond at the Tennessee Valley Authority’s (TVA’s) Kingston, TN, power plant released 1.1 billion gallons of coal ash slurry. After the TVA impoundment pond failure, this issue gained national attention. The cleanup cost has been estimated to reach \$1.2 billion.
- An April 2010 risk assessment by USEPA has caused USEPA to conclude that CCW disposal in unlined landfills and surface impoundments presents substantial risks to human health and the environment from releases of toxic constituents (particular arsenic and selenium) into surface water and groundwater. Those releases are largely prevented when the waste is disposed of in landfills and surface impoundments equipped with composite

What is coal ash?

- EPA [published regulations](#) to address the risks from the disposal of the wastes generated by electric utilities and independent power producers.
- EPA finalized [the first federal limits](#) on the levels of toxic metals in wastewater that can be discharged from power plants on November 2015.

Coal ash, also referred to as coal combustion residuals or CCRs, is produced primarily from the burning of coal in coal-fired power plants. Coal ash includes a number of by-products produced from burning coal, including:

- **Fly Ash**, a very fine, powdery material composed mostly of silica made from the burning of finely ground coal in a boiler.
- **Bottom Ash**, a coarse, angular ash particle that is too large to be carried up into the smoke stacks so it forms in the bottom of the coal furnace.
- **Boiler Slag**, molten bottom ash from slag tap and cyclone type furnaces that turns into pellets that have a smooth glassy appearance after it is cooled with water.
- **Flue Gas Desulfurization Material**, a material leftover from the process of reducing sulfur dioxide emissions from a coal-fired boiler that can be a wet sludge consisting of calcium sulfite or calcium sulfate or a dry powdered material that is a mixture of sulfites and sulfates.

Other types of by-products are:

- fluidized bed combustion ash,
- cenospheres, and
- scrubber residues.

What do you do with Coal Ash?

Coal ash is disposed of or used in different ways depending on:

- the type of by-product,
- the processes at the plant and
- the regulations the power plant has to follow.

Some power plants may dispose of it in surface impoundments or in landfills. Others may discharge it into a nearby waterway under the plant's water discharge permit. Coal ash may also be recycled into products like concrete or wallboard.

How much coal ash is there?

Coal ash is one of the largest types of industrial waste generated in the United States. According to the American Coal Ash Association's *Coal Combustion Product Production & Use Survey Report*, nearly 130 million tons of coal ash was generated in 2014.

Reusing coal ash can create many environmental, economic, and product benefits including:

- **Environmental benefits** such as reduced greenhouse gas emissions, reduced need for disposing in landfills, and reduced use of other materials.
- **Economic benefits** such as reduced costs associated with coal ash disposal, increased revenue from the sale of coal ash, and savings from using coal ash in place of other, more costly materials.
- **Product benefits** such as improved strength, durability, and workability of materials.

Why does EPA regulate coal ash?

Coal ash contains contaminants like mercury, cadmium and arsenic. Without proper management, these contaminants can pollute waterways, ground water, drinking water, and the air.

US EPA points to Kingston & Eden as why regulation is needed. [Kingston, TN](#) [Eden, NC](#)

What about Ohio? Although USEPA has thus decided to regulate fly ash as a solid waste subject to USEPA's RCRA Subtitle D regulations, that's probably not going to happen in Ohio because the Ohio General Assembly has expressly defined the term "Solid Waste" to exclude non-toxic fly ash. Although Ohio EPA has not yet made a final decision as to what response it will make to the Final Rule, right now, it appears that non toxic fly ash disposal facilities in Ohio will continue to be regulated by Ohio EPA's water pollution regulatory program, R.C. Chapter 6111.