

An Overview of Ohio's Hazardous Waste Requirements

Regulatory Services Unit

Division of Hazardous Waste Management

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What We Will Cover

- ★ Hazardous Waste Basics
 - ★ Waste Evaluation
 - ★ Generator Categories
 - ★ Generator Requirements
- ★ Universal Waste Rule
- ★ Most Commonly Cited Violations
- ★ Resources



Resource Conservation and Recovery Act (RCRA)

Cradle-To-Grave Management

“Cradle-to-Grave” Management



Generator

Transporter

T	reatment
S	torage
D	isposal
F	acility

Waste Evaluation



Waste Evaluation Requirement



Don't throw any waste into the dumpster unless you have confirmed and demonstrated that it is **NOT** a hazardous waste.



Hazardous Waste Evaluation

Under Ohio's laws, all wastes must be evaluated by the generator.

Generator – any person, by site, whose act or process produces or causes a hazardous waste to become subject to the hazardous waste rules.

In order for a material to be a hazardous waste, it must be a waste.



What Is A Waste?

- ★ A waste is any material that will be discarded by:
 - ★ Disposal
 - ★ Burning
 - ★ Storing or treating in lieu of discard
 - ★ Recycling
 - ▶ Used on the ground
 - ▶ Burned for energy
 - ▶ Speculatively accumulated



What is Not a Waste?

- ★ Commercial chemical products
- ★ Excluded waste
 - ★ Wastes specifically defined in rule as not being a waste or a hazardous waste
- ★ Materials that will be reused or reclaimed
 - ★ Only applies to certain materials



Hazardous Waste Evaluation

★ Tools you can use:

- ★ Ohio hazardous waste rules

- ★ Lab analysis of waste

- ★ Generator knowledge

- Information from vendor/supplier
- Material Safety Data Sheet (MSDS)
- Process inputs

- *** Need to document your evaluation and keep on file



Steps To Properly Evaluate Your Waste

1st – Determine if your waste is **excluded**

2nd – Determine if your waste is **listed**

3rd – Determine if your waste exhibits a **characteristic**



Excluded Wastes

- ★ Excluded wastes are not subject to Ohio's hazardous waste regulations
- ★ Ohio Administrative Code (OAC) rule [3745-51-04](#)
- ★ Examples: Domestic sewage, NPDES discharge, nonferrous oil filters, shredded circuit boards, excluded scrap metal



Steps To Properly Evaluate Your Waste

2nd – Determine if your waste is **listed**



Listed Hazardous Wastes

- ★ Non-specific waste sources (F listed)
 - ★ OAC rule [3745-51-31](#)
- ★ Specific waste sources (K listed)
 - ★ OAC rule [3745-51-32](#)
- ★ Discarded commercial chemical products (P and U listed)
 - ★ OAC rule [3745-51-33](#)



F Listed Hazardous Wastes

- ★ Non-specific sources
 - ★ Means HW can be generated from any type of manufacturing process
- ★ Examples
 - ★ Spent solvents
 - F001, F002, F003, F004, F005
 - ★ Spent electroplating operation wastes
 - F006, F007, F008, F009



F Listing Table Example

Industry and EPA hazardous waste no.	Hazardous waste	Hazard code
F004	The following spent non-halogenated solvents: cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten per cent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten per cent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)

K Listed Hazardous Wastes

★ Specific waste sources

- ★ Meaning waste is only generated from the specific type of industry and process given in the listing description

★ Examples

- ★ Wood preserving - K001
- ★ Iron and steel production
 - Arc furnace dust - K061
 - Spent pickle liquor - K062



K Listing Table Example

Industry and EPA hazardous waste no.	Hazardous waste	Hazard code
Wood preservation K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments K002.....	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003.....	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004.....	Wastewater treatment sludge from the production of zinc yellow pigments	(T)

P or U Listed Hazardous Wastes

- ★ Must be an **unused** commercial chemical product
- ★ Examples of P listed hazardous wastes:
 - ★ Copper cyanide – P029
 - ★ Phosgene – P095
- ★ Examples of U listed hazardous wastes:
 - ★ Creosote – U051
 - ★ Lindane shampoo – U129



Steps To Properly Evaluate Your Waste

3rd – Determine if your waste exhibits a
characteristic



Characteristic Hazardous Wastes

4 categories of characteristic hazardous wastes:

- Ignitable - OAC rule [3745-51-21](#)
- Corrosive - OAC rule [3745-51-22](#)
- Reactive - OAC rule [3745-51-23](#)
- Toxic - OAC rule [3745-51-24](#)



Ignitable Hazardous Wastes

D001 waste code

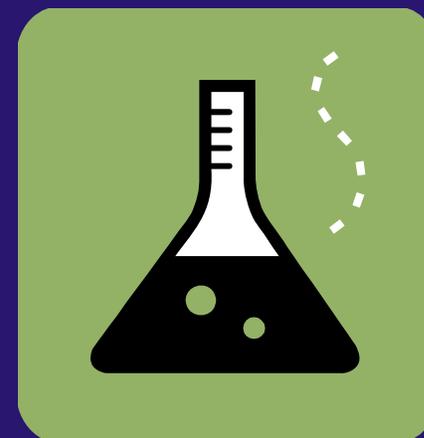
- ★ Aqueous solution & flash point <140 F (except solution <24% alcohol)
- ★ Flammable compressed gas
- ★ Solid that spontaneously ignites & burns vigorously
- ★ Oxidizer as defined DOT rules
- ★ Examples include:
 - Solvents/degreasers
 - Magnesium swarf



Corrosive Hazardous Wastes

D002 waste code

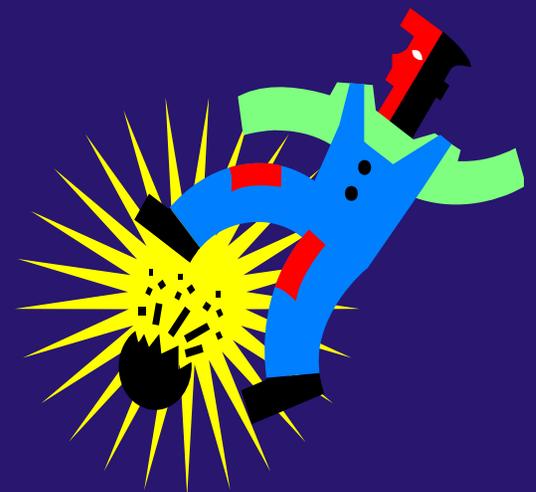
- ★ Aqueous solution; $\text{pH} < 2$ or $\text{pH} > 12.5$
- ★ Liquid that corrodes steel at a specified rate
- ★ Examples include:
 - Acids
 - Alkaline cleaning fluids
 - Waste battery acids



Reactive Hazardous Wastes

D003 waste code

- ★ Explosive, unstable, reacts violently with water or generates toxic gas
- ★ Examples include:
 - Dynamite
 - Waste bleaches



Toxic Hazardous Wastes

D004 –D043 waste codes

- ★ Contain toxic constituents above regulatory levels
 - ★ 8 metals; 32 organics
- ★ Determined by **Toxicity Characteristic Leaching Procedure (TCLP)**
- ★ Examples include:
 - ★ Electronic equipment, nutrient supplements
 - Spent foundry sand, clay poker chips, insecticides



Toxic Hazardous Waste Examples

Ohio EPA Hazardous Waste No.	Contaminant	CAS No.	Regulatory Level (mg/l)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D006	Cadmium	7440-43-9	1.0
D007	Chromium	7440-47-3	5.0
D008	Lead	7439-92-1	5.0
D009	Mercury	7439-97-6	0.2
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0

Do I Have A Hazardous Waste?



Generator Categories



Generator Categories

Ohio has three hazardous waste generator categories:

- ★ Conditionally Exempt Small Quantity Generators (CESQGs);
- ★ Small Quantity Generators (SQGs); and
- ★ Large Quantity Generators (LQGs).



Determining Your Category

- ★ Total weight of hazardous waste that the entire facility generates (produces) in any given month of the calendar year;
 - ★ For example: Hazardous waste that you generate between October 1st and October 31st

AND

- ★ Total amount of hazardous waste on-site at any given time (only pertains to CESQGs and SQGs)

NOTE: Generator categories are **NOT** determined by the weight of waste shipped off-site or by averaging.

Determining Your Category Cont.

OAC rule [3745-51-05](#) – Special requirements for hazardous waste generated by conditionally exempt small quantity generators.



Conditionally Exempt Small Quantity Generators (CESQGs)

You are a CESQG if you:

- ★ generate no more than 220 pounds of hazardous waste in a calendar **month**; **AND**
- ★ never accumulate more than 2,200 pounds of hazardous waste on your property

Note: 220 pounds is about **half** of a 55-gallon drum
2,200 pounds is about **five** 55-gallon drums



What If I Go Over The CESQG Limits?

- ★ Generate more than 220 pounds of HW/month
 - ★ you become either an SQG or an LQG for that month
- ★ Accumulate more than 2,200 pounds of HW at any given time
 - ★ you become an SQG until that HW is moved off-site



Small Quantity Generators (SQGs)

You are an SQG if you:

- ★ generate more than 220 pounds but less than 2,200 pounds of hazardous waste/month; and
- ★ never accumulate over 13,200 pounds of hazardous waste on-site, or you will become subject to permitting



What If I Go Over The SQG Limits?

- ★ Generate more than 2,200 pounds of hazardous waste in a calendar month
 - ★ you become an LQG until that hazardous waste is moved off-site
- ★ Accumulate over 13,200 pounds of hazardous waste on-site
 - ★ you become a treatment, storage and disposal facility (TSDF) and must have a hazardous waste installation and operation [permit](#)

Large Quantity Generators (LQGs)

You are an LQG if you:

- ★ generate 2,200 or more pounds of hazardous waste/month

Note: LQGs do not have a limit on the amount of hazardous waste stored on-site



What If I Change Generator Categories?

- ★ Often termed episodic generation
- ★ Must manage your hazardous waste under all applicable generator requirements for hazardous wastes generated that month for as long as that waste remains on-site
- ★ If you reach LQG status at any time during the calendar year, you must file an annual report

Generator Requirements



Determining Your Generator Requirements

- ★ **CESQGs** follow OAC rule [3745-51-05\(F\)](#) through [\(J\)](#)
- ★ **SQGs** and **LQGs** follow OAC Chapter [3745-52](#) (which references other rules)



Generator Requirements Summary Table

- ★ Management requirements
- ★ OAC references
- ★ CESQG, SQG, or LQG compliance requirement
- ★ DHMW has a [Web-page on Hazardous Waste Generator Requirements](#)

Hazardous Waste Determination

- ★ Determine if your waste is hazardous waste
- ★ OAC rule [3745-52-11](#)
- ★ Failure to properly evaluate your waste may lead to unsafe conditions or violations from improper management



Remember This!



Don't throw any waste into the dumpster unless you have confirmed **and** demonstrated that it is **NOT** a hazardous waste.



U.S. EPA Identification Number

- ★ Only required for **SQGs** and **LQGs**
- ★ **CESQGs** are not required to obtain U.S. EPA ID numbers
- ★ U.S. EPA ID numbers are site specific



How Do I Obtain A U.S. EPA Identification Number?

- ★ US EPA Form 9029 from [DHWM's Web site](#) or call (614) 644-2977 - Notification of Regulated Waste Activity Booklet
 - ★ Form and instructions
 - ★ Revised in 2009 – always use most current form
- ★ Mail the completed and signed original EPA form 9029 to:
 - Ohio EPA – DHWM
 - Regulatory and Information Services
 - P.O. Box 1049
 - Columbus, Ohio 43216-1049



How Long May I Accumulate (store) HW On-site?

- ★ CESQGs do not have any storage time limits
- ★ SQGs can store hazardous waste on-site for up to *180 days*; HOWEVER, if transporting a distance of 200 miles or more, can store for up to 270 days (30 day extension available)
- ★ LQGs can store hazardous waste on-site for up to *90 days* (30 day extension available)

What Is Satellite Accumulation?

- ★ **Satellite accumulation** – term for the temporary storage of hazardous waste near where it is generated
- ★ Found in OAC rule [3745-52-34\(C\)](#)
- ★ Only applies to **SQGs** and **LQGs**
- ★ Use of this rule reduces some regulatory requirements for storage areas
- ★ [Satellite Accumulation Guidance Document](#)



What Requirements Apply to Satellite Accumulation Areas?

- ★ Up to 55 gallons of hazardous waste in containers at or near each point of generation
- ★ Containers must be under control of the operator of the process which generated the waste
- ★ Containers must be compatible with waste and in good condition – not leaking



What Requirements Apply to Satellite Accumulation Areas?

- ★ Containers must be marked with the words “**Hazardous Waste**” (or other words that identify contents)
- ★ Containers must remain closed except when adding or removing hazardous waste



What Happens When I Reach The 55-Gallon Limit?

- ★ Place the date on the container when it happened
- ★ Move the container to your centralized storage area (i.e., 90/180 day area) within *three days* of the date that you place on the container
- ★ Begin complying with the **SQG** or **LQG** hazardous waste accumulation requirements
 - ★ Place new date on container when it arrives at central accumulation area (start of 90/180 day timeframe)

What is Treatment?

- ★ Defined in OAC rule [3745-50-10\(A\)\(125\)](#)
- ★ **Treatment** - any method, technique or process, designed to:
 - ★ render waste non-hazardous
 - ★ less-hazardous
 - ★ safer to transport, store or dispose of
 - ★ amenable for recovery
 - ★ amendable for storage
 - ★ reduced in volume
- ★ [Generator Treatment Guidance Document](#)



May I Treat My Hazardous Waste On-site?

- ★ Many forms allowed by generators without a hazardous waste permit:
 - ★ Neutralization
 - ★ Polymerization
 - ★ Stabilization
 - ★ Wastewater treatment
- ★ Forms not allowed by generators include:
 - ★ Thermal treatment (incineration, certain evaporators)
 - ★ Land disposal (surface impoundments, landfills)
- ★ Consult with us if you wish to treat your hazardous waste

Tanks vs. Containers

- ★ OAC rule [3745-50-10](#) defines these units
- ★ A **container** is any *portable device* in which a material is stored, transported, treated, disposed of or otherwise handled.
- ★ A **tank** is a *stationary device*, designed to contain an accumulation of hazardous waste, which is constructed primarily of non-earthen materials (wood, concrete, steel, plastic) that provides structural support.



What Are The Container Management Requirements?

- ★ Found in OAC rules

[3745-66-70 through 3745-66-77](#)

- ★ They only apply to **SQGs** and **LQGs**
 - ★ though not required, these preventative measures are good for **CESQGs** to follow



What Are The Container Management Requirements For SQGs and LQGs?

- ★ Must be in good condition
- ★ Compatible with the hazardous waste and area
- ★ Visibly labeled as “**Hazardous Waste**”
- ★ Closed (lids)
- ★ Conduct weekly inspections



What Are The Container Management Requirements For SQGs and LQGs?

- ★ Label storage start date
- ★ Maintain aisle space (as part of Preparedness and Prevention)
- ★ Ignitable/reactive located 15 meters (50 feet) from facility's property line
- ★ U.S. EPA air emission standards (i.e. AA, BB, CC) (**LQGs only**)



What Are The Tank Management Requirements?

- ★ They only apply to **SQGs** and **LQGs**
 - ★ though not required, these preventative measures are good for **CESQGs** to follow
- ★ Found in OAC rules
[3745-66-90 through 3745-66-101](#)
- ★ [Large Quantity Generator Tank System Requirements](#)



What Are The SQG Tank Management Requirements?

- ★ Be able to show - emptied/overtumed once every 180 days
- ★ OAC rule [3745-66-101](#) specific to SQGs
- ★ Good condition
- ★ Compatible with waste and area
- ★ Labeled as “Hazardous Waste”
- ★ Daily inspections (rule specifies)
- ★ Remove all hazardous waste from site when facility closes

What Are The LQG Tank Management Requirements?

- ★ Be able to show - emptied/overturned once every 90 days
- ★ Good condition
- ★ Compatible with waste and area
- ★ Labeled as “Hazardous Waste”
- ★ Daily inspections



What Are The LQG Tank Management Requirements?

- ★ Secondary containment
- ★ Leak detection system
- ★ Tank system assessment/certification
- ★ Closure
- ★ U.S. EPA air emission standards (i.e. AA, BB, CC)

What Am I Required To Do When I Ship My HW Off-site?

Found in OAC rules [3745-52-30 to 3745-52-33](#)

CESQGs are not required to prepare a manifest

SQGs and **LQGs** must prepare manifest and

- ★ Package your HW
- ★ Label each package of HW
- ★ Mark each package of HW
- ★ Placard or offer the initial transporter the appropriate placards
- ★ Contact [Public Utilities Commission of Ohio](#) for more information (800-686-7826)

Does My Business Need Personnel Training?

- ★ OAC rules [3745-65-16](#) and [3745-52-34](#)
- ★ **CESQGs** are not required to conduct personnel training
- ★ **SQGs** must
 - ★ ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures
- ★ **LQGs** must
 - ★ conduct classroom instruction or on-the-job personnel training for facility employees
 - ★ conduct annual refreshers
 - ★ maintain documentation of personnel training



How Do I Prepare For Emergencies?

Found in OAC rules [3745-65-30 to 3745-65-37](#)

No requirements for **CESQGs**

SQGs and **LQGs** must:

- ★ Maintain emergency equipment on-site
- ★ Maintain and operate your facility to minimize the possibility of emergencies
- ★ Test and maintain your emergency equipment and record the inspections in a log
- ★ Maintain adequate aisle space
 - ★ Movement of personnel and emergency response equipment
- ★ Make arrangements with local emergency authorities

When Do I Need Emergency Procedures & A Contingency Plan?

- ★ **SQGs** – at least one employee on-site or on-call to respond to all emergencies
- ★ **LQGs** – prepare and maintain a written contingency plan
 - ★ Maintain all reports of contingency plan implementation on-file and report the incidents to Ohio EPA
 - ★ A copy of your contingency plan must be maintained at your facility & submitted to local police, fire, hospitals, emergency response teams and Ohio EPA

What Are My Recordkeeping Requirements?

- ★ Found in OAC rule [3745-52-40](#)
- ★ **SQGs** and **LQGs** must keep a copy of the following for at least 3 years:
 - ★ **Test results**
 - ★ **Waste evaluation**
- ★ **CESQG** must be able to show that they evaluated their waste



What Are SQG's Additional Recordkeeping Requirements?

- ★ Additionally, **SQGs** must keep a copy of these for at least 3 years:
 - ★ Weekly container inspections;
 - ★ All manifests; and
 - ★ Land disposal restriction notifications, certifications and waste analysis data



What Are LQG's Additional Recordkeeping Requirements?

- ★ **LQGs** must keep a copy of these for at least 3 years:
 - ★ Everything mentioned in the previous two slides;
 - ★ Personnel training documents;
 - ★ Annual reports; and
 - ★ Daily tank inspection logs



What Are My Manifesting Requirements?

- ★ Manifests are HW tracking documents
 - ★ Revised form – US EPA has info where to get them
- ★ Found in OAC rules 3745-52-20 to 3745-52-23
- ★ Only **SQGs** and **LQGs** must manifest their HW
 - ★ Each person who transports, stores, treats or disposes must sign & retain a copy
 - ★ Must receive signed copy of your manifest from the final destination facility
 - ★ Each transporter must have a copy for their records
 - ★ Destination facility must have a copy

What Is An Exception Report?

- ★ Found in OAC rule [3745-52-42](#)
- ★ Exception reports are part of the RCRA manifest tracking system
- ★ After you send waste off-site for disposal, the **TSDF** is required to return to you a copy of the original manifest
- ★ If you don't receive the manifest from the **TSDF**, then you must submit an exception report to Ohio EPA

Am I Required To File An Exception Report?

- ★ CESQGs - Not Required

- ★ SQGs – Required

- ★ If you do not receive a copy of the manifest signed by the **designated facility** within **60 days**: Send exception report to Ohio EPA

- ★ LQGs – Required

- ★ If you do not receive a copy of the signed manifest within **35 days**: Contact transporter and/or the designated facility

- ★ If you do not receive a copy of the signed manifest within **45 days**: Send exception report to Ohio EPA

Rejected Loads

- ★ A shipment of hazardous waste that cannot be accepted because:
 - ★ Facility permit restriction, or
 - ★ Capacity limitations
- ★ Includes all shipments in whole or in part regardless whether the manifest has been signed
- ★ **Generators** can store rejected loads or residues sent back to them for 90 or 180 days depending on the amount of hazardous waste on-site during the calendar month the rejected load/residue was received



What Are The Land Disposal Restrictions (LDRs)?

- ★ Found in OAC Chapter [3745-270](#)
- ★ These only apply to **SQGs** and **LQGs**
- ★ Standards developed to ensure that toxic constituents present in hazardous waste are properly treated before land disposal
- ★ [Land Disposal Restrictions \(An Overview\)](#)



Land Disposal Restrictions Treatment Standards

- ★ Given as treatment technology or numeric level
- ★ Specified for all listed and characteristic hazardous wastes
- ★ Must be met prior to hazardous waste being land disposed



Land Disposal Restrictions

Regulatory Status of Treated Hazardous Waste

- ★ Treated **listed hazardous wastes** must still be managed & disposed of under hazardous waste rules
- ★ Treated **characteristic hazardous wastes** are no longer defined as hazardous wastes
 - ★ Disposal regulated under non-hazardous waste program



Land Disposal Restrictions

General Requirements

- ★ Waste analysis plan (if hazardous waste is treated to meet LDRs)
- ★ Notification requirements
- ★ Verification of treatment
- ★ Recordkeeping
- ★ Certification

- ★ If not subject to LDRs keep record as to why not
 - ★ WWTP, elementary neutralization, metals recovery...

Must I File an Annual Report?

- ★ OAC rule [3745-52-41](#)
- ★ Only **LQGs** file annual reports
 - ★ Includes episodic generators who became LQGs
- ★ Report provides Ohio EPA and U.S. EPA with data concerning your facility's hazardous waste generation, management and waste minimization activities
- ★ Due by March 1st



LAMPS AND BATTERIES

Can I throw them in the trash?



What's the big deal about fluorescent lamps and batteries?

- ★ The evils of mercury
- ★ Other goodies in lamps
- ★ A broken lamp means escaped mercury
- ★ Different types of batteries contain different chemicals



What's in those batteries?

- ★ Single use alkaline

- ★ Zinc, Manganese Dioxide and Potassium Hydroxide



- ★ Rechargeable

- ★ Nickel Cadmium, Nickel Metal Hydride, Lithium Ion, Lead Acid and Small Sealed Lead

So can I throw them in the trash?

- ★ Mercury, cadmium and lead in lamps and batteries often make them hazardous waste
- ★ You'll have to evaluate them to be sure they aren't hazardous
- ★ You can use reliable data supplied by others or have them tested



Is there an alternative to throwing them in the trash?

- ★ Mercury, glass and metal in lamps can be recovered and recycled
- ★ Metals in hazardous and non-hazardous batteries can be recovered and used in new batteries and making steel



What do I need to do if I recycle?

- ★ Choice of complying with more complicated hazardous waste rules or the simpler universal waste rules
- ★ No hazardous waste regulations to comply with if the waste isn't hazardous



Universal Waste Management System

- ★ Designed to encourage collection and recycling of wastes from wide variety of sources including households and small businesses
- ★ Includes wastes that pose low hazards
- ★ Wastes can be safely managed under less restrictive rules than other hazardous wastes



What is the Universal Waste Rule?

- ★ Streamlined hazardous waste management system
- ★ For widely generated hazardous wastes
- ★ Currently hazardous lamps, batteries, recalled pesticides and thermostats can be universal wastes (UW) in Ohio



Where can I find the rules?

- ★ Ohio Administrative Code (OAC) chapter [3745-273](#)
- ★ **Small handler** rules are OAC rules 3745-273-10 through 3745-273-20
- ★ **Large handler** rules are OAC rules 3745-273-30 through 3745-273-40



Universal Waste Requirements

- ★ Do not have to count UW toward hazardous waste generator status
- ★ **Small Quantity Handler** of UW if you accumulate less than 11000 lbs. of UW (collectively) at any time
- ★ **Large Quantity Handler** of UW if you accumulate 11000 lbs. or more of UW waste at any time



Small Handlers

- ★ Must send UW to another handler or a destination facility
- ★ Can receive and accumulate UW from other handlers
- ★ Cannot dispose, dilute or treat except as specified in rule for each type of UW
- ★ Not required to notify and get an ID number



Small Handler

- ★ Label or mark the UW (or container) to identify type of UW as specified in OAC rule 3745-273-14
- ★ Manage UW to prevent releases to environment
- ★ Must keep records to demonstrate how long UW has been accumulated; accumulate ≤ 1 year
- ★ Inform employees of proper handling and emergency procedures



Small Handler

- ★ Contain releases from UW
- ★ Determine if material from spill cleanup is hazardous waste - if so properly manage it
- ★ Must follow DOT rules for shipping UW (e.g., proper package, label, mark, placard, shipping papers)
- ★ Must make sure receiving handler agrees to accept UW
- ★ No tracking requirements



Large Handler

Must comply with small handler requirements and;

- ★ Notify and obtain an ID number if no previous notification
- ★ Keep shipping and receipt records for three years
- ★ Ensure that employees are familiar with proper handling and emergency procedures

Can I crush my lamps?

- ★ You cannot crush your lamps and still comply with the universal waste rules
- ★ You can crush your lamps if you comply with full hazardous waste rules, e.g.,
 - ★ Hazardous waste generator requirements
 - ★ Manifest
 - ★ Send directly to a permitted facility



Can I throw green tip lamps in the trash?

- ★ Must evaluate lamps
- ★ Must keep evaluation documents
- ★ You can have representative sample of lamps analyzed for TCLP metals or use reliable up-to-date manufacturer's data as all or part of your evaluation



Why recycle green tip lamps?

- ★ Keeps mercury from being released to environment
- ★ Conserves resources - glass, metals
- ★ Preferred management method in Ohio for mercury-containing lamps
- ★ No need to evaluate them



DOT rules for batteries

- ★ Batteries destined for recycling need to be properly packaged per [DOT rules](#)
- ★ Batteries present a fire hazard if they short circuit
- ★ Terminals must be taped, or batteries placed in individual bags or original containers



Most Commonly Cited Violations



Most Commonly Cited Violations

- ★ Failure to evaluate your waste
- ★ Not filing your annual report correctly
- ★ Not properly managing containers or maintaining an inspection log
- ★ Not testing or maintaining emergency equipment
- ★ Not labeling used oil containers, tanks or fill pipes

Key Point With Waste Evaluation



Don't throw any waste into the dumpster unless you have confirmed **and** demonstrated that it is **NOT** a hazardous waste.



Avoiding Annual Reporting Violations

- ★ OAC rule [3745-52-41](#)
- ★ Due by March 1st
- ★ Only report hazardous waste; not universal waste or used oil
- ★ Check accuracy and completeness
- ★ Questions? Contact Mary Ann Silagy at 614-644-2891



Container Management

- ★ OAC rules [3745-66-73 and 3745-66-74](#)
- ★ Keep containers closed while in storage
- ★ Do not open, handle or store containers in a manner that will cause them to rupture or leak
- ★ Conduct inspections of container storage areas, at least weekly, looking for signs of leaks or deterioration
- ★ Record inspections in a [log](#) or summary

Emergency Equipment

- ★ OAC rule [3745-65-33](#)
- ★ Alarm systems, fire protection equipment, spill control equipment and decontamination equipment must be tested and maintained **as necessary** to ensure proper operation in time of emergency
- ★ Record inspections in [log](#) or summary



Avoiding Used Oil Violations

- ★ OAC Chapter [3745-279](#)
- ★ Labeling – “Used Oil”
 - ★ Do **Not** Label as “Waste Oil” or “Hazardous Waste”
- ★ Storage – Tanks or Containers
- ★ Releases – Be sure to address



Resources



DHWM's Web site

Main Hazardous Waste Page

www.epa.ohio.gov/dhwm

Rules

www.epa.ohio.gov/dhwm/laws_regs.aspx

Publications/Guidance Documents

<http://ohioepapubs.custhelp.com/>

Notifier (Newsletter – Hazardous Waste News for Ohio)

www.epa.ohio.gov/dhwm/newsletter.aspx

Division Links
Rules and Laws
Publications
Contacts
Notifier

www.epa.ohio.gov/dhwm

Quick Links
Generator Requirements
Annual Reports
US EPA ID Numbers
Electronic News Source
(Listserv)
Universal Waste
Used Oil
More...

Welcome to the Division of Hazardous Waste Management



The Division of Hazardous Waste Management implements Ohio's hazardous waste program, regulates hazardous waste from the point of generation to final disposition and enforces the federal Resource Conservation and Recovery Act.

Since 1980, the division has inspected over 10,000 facilities, issued 1,500 orders, and executed a visible and effective enforcement program. The division has also provided technical assistance and pollution prevention. The division has also provided technical assistance to companies to properly secure their facilities when they go out of business.

What's New...
Current News

Division Links

Division Rules and Laws
The *Notifier* Newsletter
Mission, Vision & Goals
Final Actions
Forms & Publications
Division Web Site Redesign
Division Contacts
Division Home

What's new...

Ohio EPA Issues Director-Initiated Modification For Ross Incineration - Wednesday, October 21, 2009

[read more ...](#)

New Guidance - Burning Used Oil in a Space Heater, for Homeowners - Thursday, October 08, 2009

Guidance on how Ohio's used oil rules apply to homeowners who want to

Quick Links

► Quick reference to popular topics such as: Annual Reports, Generator Requirements, Financial Assurance, Facility Listings, Recycling & others.

Select a Link

Go

Agency Links

Divisions and Offices
Topic Index
Regulatory Ombudsman
Rules and Laws
Pollution Prevention
Funding Sources
Publications
Public Records

Stakeholder Input
Draft rules for comment
Draft permits for comment

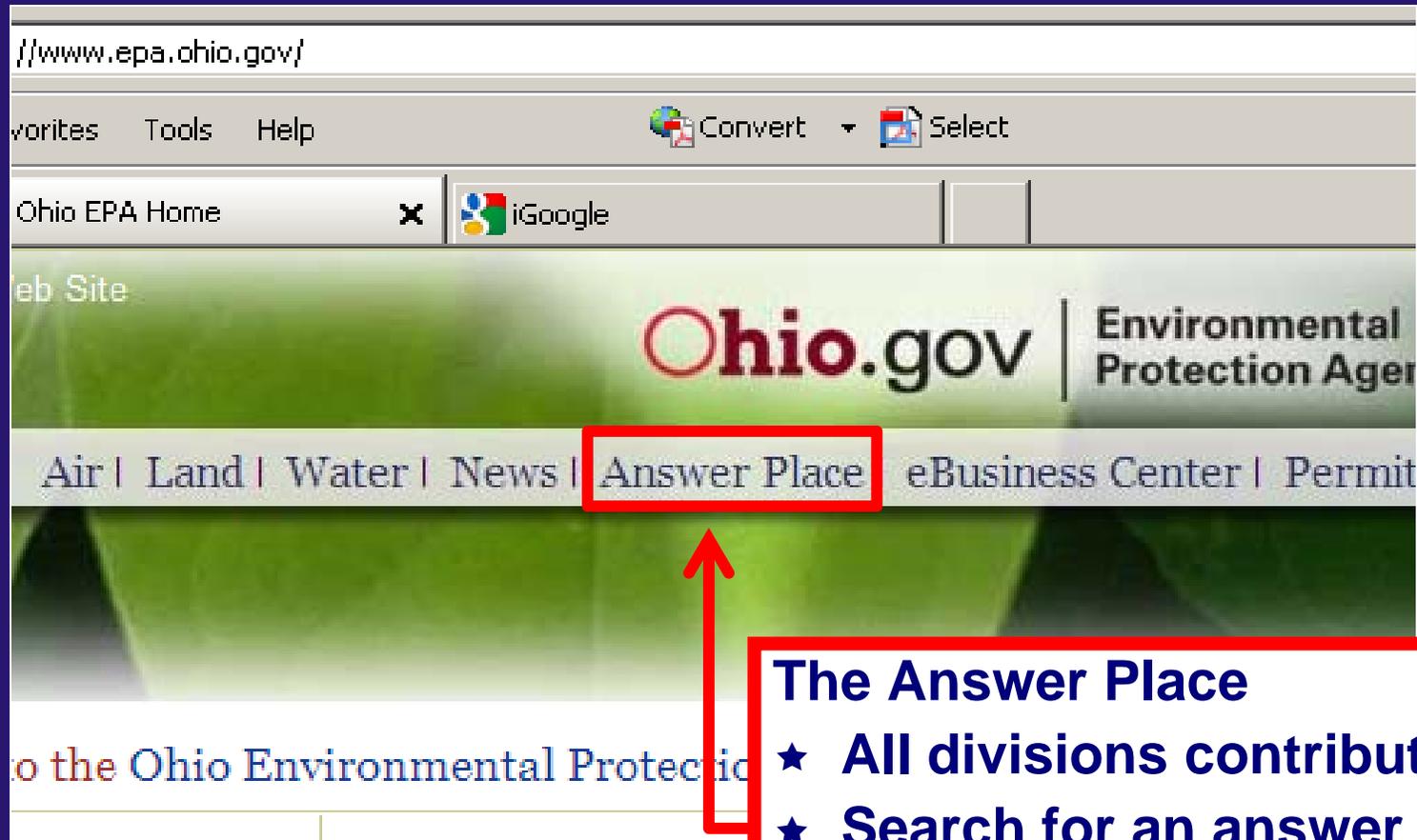
-The Publications Catalog
-Sustainability within DHWM
-The Association of State and Territorial Solid Waste Management Officials
Ohio EPA's 40th Anniversary - Celebrating 40 Years

Stakeholder Input

Draft Renewal Permit - PPG Industries, Inc. Barberton - Tuesday, October 20, 2009

On October 16, 2009, Ohio EPA issued a draft renewal Hazardous Waste Facility Installation and Operation Permit (Permit) to PPG Industries, Inc., Barberton, for its facility located at 4829 Fairland Road, Barberton, Ohio 44203-3905. Comments on the draft action are due by December 1, 2009.

Answer Place



The Answer Place

- ★ All divisions contribute
- ★ Search for an answer
- ★ Send a new question through email

More Resources

Recyclers List

<http://epawebapps.epa.state.oh.us/Recyclers/jsp/search.jsp>

Receiving Facilities (facilities accepting hazardous waste or recyclable materials)

www.epa.ohio.gov/dhwm/receiving_facilities.aspx

U.S. EPA – RCRA On-Line (rule interpretations)

www.epa.gov/waste/inforesources/online/index.htm



Guidance Documents

- ★ Hazardous Waste Generator Handbook

www.epa.ohio.gov/portals/32/pdf/gen_handbook.pdf

- ★ Generator Requirements Summary Table

www.epa.ohio.gov/portals/32/pdf/GeneratorRequirementsTable.pdf

- ★ Identifying Your Hazardous Waste

www.epa.ohio.gov/portals/41/sb/publications/identifyingwaste.pdf



Still More Resources

- ★ Universal waste guidance documents

<http://www.epa.ohio.gov/dhwm/universalwaste.aspx>

- ★ How to clean up a broken mercury lamp

http://www.epa.ohio.gov/pic/cfl_info.aspx#break

- ★ [DOT - Transportation of batteries](#)



Ohio EPA Resources

Information and Resources from Ohio EPA

DHWM Regulatory Services Unit

Weekdays from 8 AM – 5 PM

(614) 644-2917

Office of Compliance and Pollution Prevention

Weekdays, 8 AM - 5 PM

(800) 329-7518



Upcoming Ohio EPA Hazardous Waste Rules Effective September 2010

- ★ Regulation of zinc fertilizer containing HW
- ★ Mercury containing equipment as universal waste
- ★ Regulation of CRTs
- ★ HW rules for university laboratories
- ★ Corrections to the manifest rule



Upcoming US EPA Waste rules

- ★ Regulation of coal combustion wastes
- ★ Revisions to the definition of solid waste
- ★ Corrections/clarification rule, 3/18/2010
- ★ Episodic generator rule, 9/2010
- ★ Export rule, 1/2010
- ★ Pharmaceutical wastes as universal wastes, 4/2011
- ★ Regulation of nonhazardous waste that is burned as a fuel

