

Environmental Basics

- Hope Manning, Vice President, E&C, EQM
- Heidi Reeb, Site HSE Leader, P&G



Presentation Content

- ▶ Regulations, Permitting, recordkeeping and reporting obligations for each regulation for
 - ▶ Air,
 - ▶ Water,
 - ▶ Community Right to Know and Chemical Reporting,
 - ▶ Hazardous Waste,
 - ▶ Misc.

Air



US EPA Regulated Air Emissions – Background

- ▶ Sources
 - ▶ Moving Sources – aircraft, motor vehicles
 - ▶ Stationary Source Emissions – grouped into Industry sector categories
- ▶ Emissions
 - ▶ National Ambient Air Quality Standards
 - ▶ Established to protect public health (Primary) and public welfare/environment (Secondary)
 - ▶ Use to establish attainment and non-attainment areas
 - ▶ Criteria Air Pollutants
 - ▶ CO, NO₂, O₃ (VOCs), particulate matter, SO₂, lead
 - ▶ Other pollutants
 - ▶ National Emission Standards for Hazardous Air Pollutants
 - ▶ Acid rain, emissions that deplete stratospheric ozone layer, regional haze, noise pollution
- ▶ Periodically Reviewed by clean air scientific advisory committee

Criteria Pollutants

Sulfur Dioxide
(SO₂)

- An odored gas from the combustion of fossil fuels (utilities and vehicles), industrial processes, and natural sources (volcanoes).

Carbon Monoxide
(CO)

- CO is a colorless, odorless gas that is released when fossil fuels are combusted.

Particulate Matter 2.5
(PM 2.5)

- A mixture of solid particles and liquid droplets found in the air, such as dust, dirt, soot, or smoke, with a diameter of 2.5 micrometers or smaller.

Criteria Pollutants

Nitrogen Oxide
(NO_x)

- A gas from the combustion of fossil fuels (utilities and vehicles) and industrial processes.

Ozone
Volatile Organic
Compounds
(VOC)

- Colorless, odorless gas created by chemical reactions between NO_x and VOC (emitted by utilities, vehicles, and industrial processes chemically) and sunlight.

Lead

- From the combustion of fossil fuels (utilities) and industrial processes.

Federal Rules – Air Permitting

- ▶ 40 CFR Part 60 – New Source Performance Standards
- ▶ 40 CFR Parts 61/63 – National Emissions Standards for Hazardous Air Pollutants
- ▶ 40 CFR Parts 51/52 – New Source Review
- ▶ 40 CFR Parts 72-78 – Acid Rain Program
- ▶ 40 CFR Parts 70/71 – Title V Permitting Program

Federal Standards for Processes (NSPS/NESHAP)

	<i>New Source Performance Standards (NSPS) 40 CFR Part 60</i>	<i>National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 61/63</i>
<i>Target Pollutants</i>	Criteria Pollutants (NO _x , SO ₂ , CO, VOC, PM)	Hazardous Air Pollutants (ex. benzene, perchloroethylene, methylene chloride)
<i>Applies To What Processes</i>	New and modified/ reconstructed units (some existing units covered by Emission Guidelines)	Both new and existing units
<i>Applies at What Sites/ Facilities</i>	All	Major sources of HAPs (>10/25) Area sources of HAPs (<10/25)
<i>Categories</i>	~90	~140

Printing

Boiler MACT
Mon-Mact



New Source Review 40 CFR Parts 51/52

- ▶ New Source Review (NSR) is the federal air permitting program that regulates the construction of major new sources and major modifications to existing sources to maintain NAAQS
- ▶ Prevention of Significant Deterioration (PSD)
 - ▶ NAAQS Attainment Areas
 - ▶ Best Available Control Technology (BACT)
- ▶ Non-Attainment NSR (NNSR)
 - ▶ NAAQS Non-Attainment Areas
 - ▶ Lowest Achievable Emissions Rate Technology (LAER)
 - ▶ Emission Offsets
- ▶ Modeling/U.S. EPA/Public Comment



Title V Permitting Program

40 CFR Parts 70/71

- ▶ Federal operating permit program
 - ▶ Potential emissions exceed major source thresholds:
 - ▶ 100 tpy for any regulated air pollutant (lower for non-attainment areas)
 - ▶ 10 tpy for a single HAP or 25 tpy for any combination of HAPs
 - ▶ Other triggers = NSR Permit, Acid Rain Program, NSPS standards, most NESHAP/MACT standards
- ▶ Purpose was to ensure compliance with all applicable requirements of the Clean Air Act and to enhance U.S. EPA's ability to enforce it
- ▶ Before Title V, permits were issued for individual emission units and had inconsistent permit terms and recordkeeping and reporting requirements
- ▶ After Title V, all state and federal requirements were aggregated into one permit with consistent reporting deadlines and permit term (5 years)



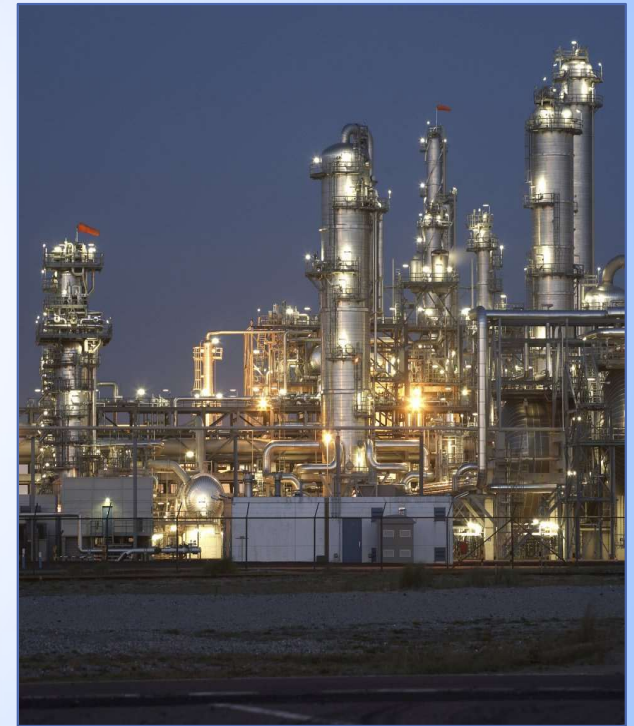
Stratospheric Ozone Protection Program 40 CFR Part 82

- CFCs (R-11, R-12), HCFCs (R-22, R-123)
- Technician requirements
- Handler requirements
- Owner/operator requirements (> 50 lbs) (documentation, leak rate calculation, recordkeeping, reporting)
- Current leak rate thresholds are:
 - 30% industrial process refrigeration
 - 20% commercial refrigeration
 - 10% comfort cooling appliances
- Reporting Requirements



Chemical Accident Prevention Program 40 CFR Part 68

- Federal program for the prevention and mitigation of accidental releases of certain listed toxic or flammable substances
- Common RMP chemicals include anhydrous ammonia, chlorine, propane/butane/pentane flammable mixtures, ammonia (>20%), sulfur dioxide, formaldehyde, and hydrogen
- Applicable if you have greater than the Threshold Planning Quantity (TPQ) of a listed substance in a covered “process”; TPQs range from 500 to 20,000 pounds
- Must develop and implement a risk management program and prepare and submit a Risk Management Plan (RMP)
- Updates expected August 2023...



Greenhouse Gas Reporting Program

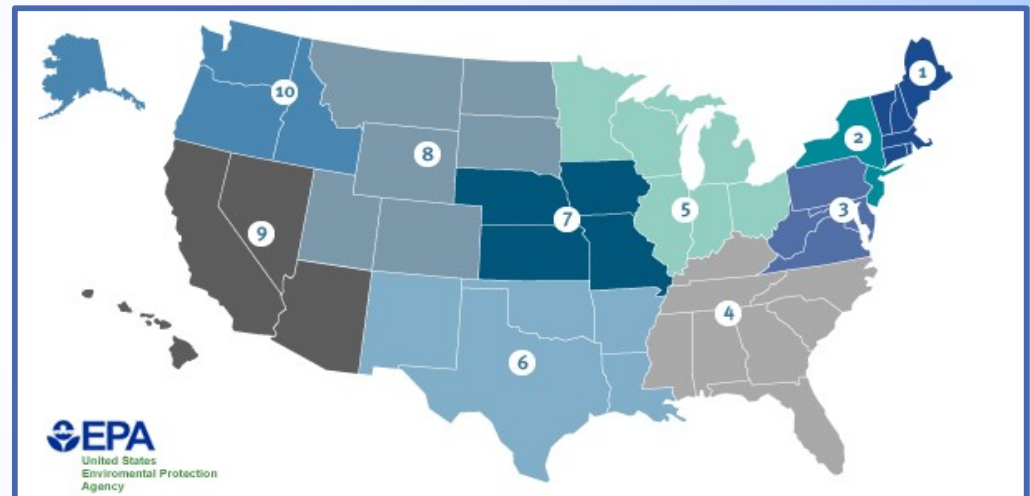
40 CFR Part 98

- The Greenhouse Gas Reporting Program (GHGRP) collects Greenhouse Gas (GHG) data from large emitting facilities
- In general, the rule requires facilities that emit $\geq 25,000$ metric tons of carbon dioxide equivalent (CO_2e) per year to submit annual emission reports
- Certain source categories are required to report regardless of emission levels
- Subject facilities must submit reports using U.S. EPA's e-GGRT web-based reporting tool
- Reports are due ~ March 31 each year for the previous year

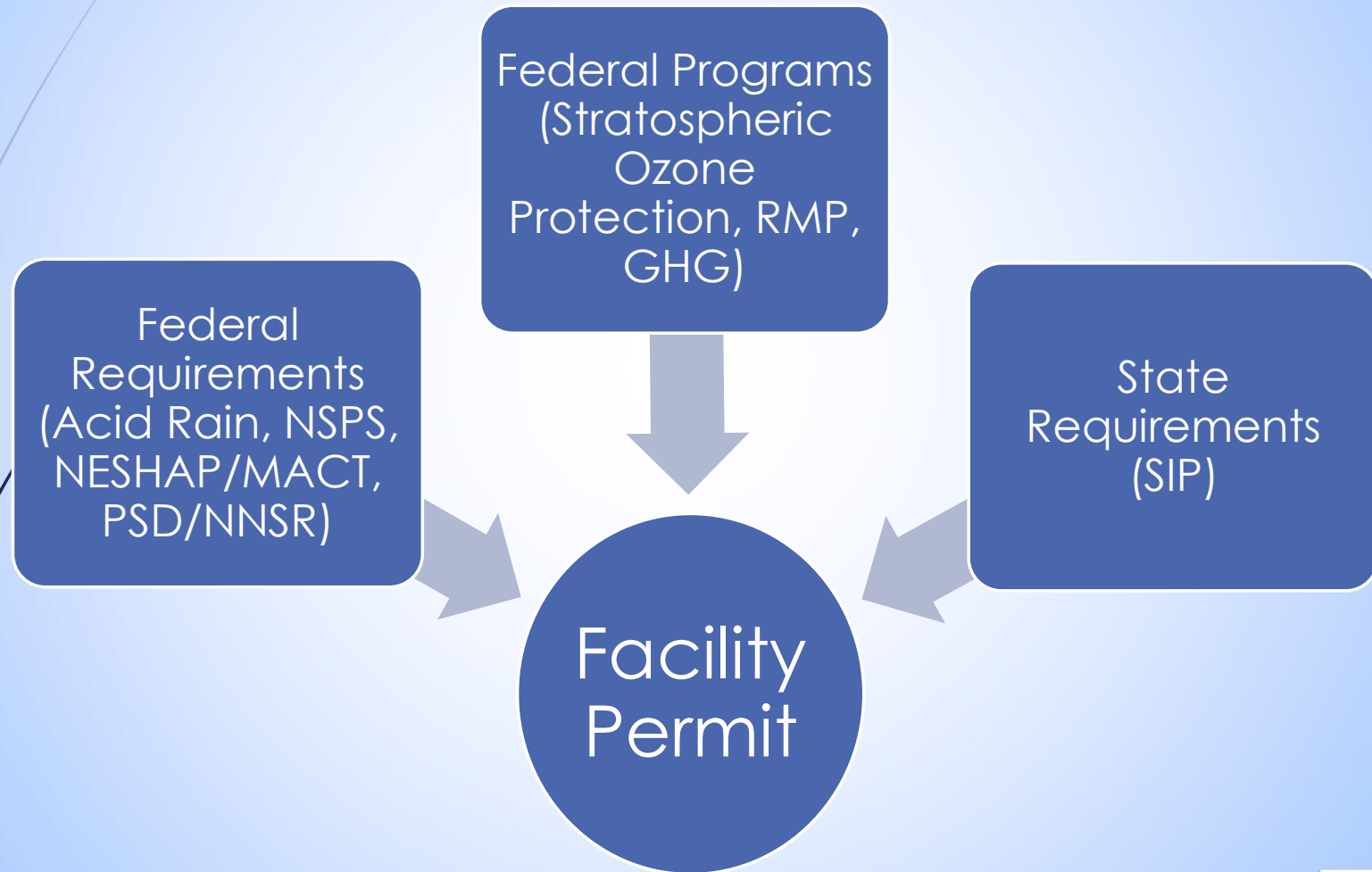
State Implementation Plans

- Regulations used by states, territories, or local air districts to meet and maintain NAAQS for criteria pollutants:

- * ground level ozone (O₃)
- * particulate matter (PM)
- * carbon monoxide (CO)
- * sulfur dioxide (SO₂)
- * nitrogen dioxide (NO₂)
- * lead (Pb)



Permit Content



Resources

- ▶ List of Hazardous Air Pollutants <https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications>
- ▶ Regulations and guidance documents - see U.S. EPA and/or state website
- ▶ State List-Serves
 - ▶ Ohio <https://epa.ohio.gov/stay-compliant>
 - ▶ Kentucky <https://eec.ky.gov/Environmental-Protection/Air/Pages/State%20Implementation%20Plan%20Revisions.aspx>
 - ▶ Indiana <https://www.in.gov/idem/public-notices/>
- ▶ Federal List-Serve <https://public.govdelivery.com/accounts/USGPO0FR/subscriber/new>

Water



Clean Water Act (CWA)

- Federal Water Pollution Control Act (FWPCA) Amendments of 1972
 - 33 U.S.C. §1251 et seq. (1972)
- Created 40 CFR 122 – The “National Pollution Discharge Elimination System” (NPDES)
 - Prohibits anybody from discharging “**pollutants**” through a “**point source**” into a “**water of the United States**” unless they have a NPDES permit.
- Also created...Oil Pollution Control Act (40 CFR 112)

Clean Water Act (CWA)

➤ Pollutant

- Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Clean Water Act (CWA)

➤ Point Source

- “any discernible, confined and discrete conveyance, such as a pipe, ditch, channel, tunnel, conduit, discrete fissure, or container”
 - Outfalls, man-made ditches, vessels or floating craft, animal feeding operations, etc.
- Where pollutant the leaves the facility
 - Indirect or Direct

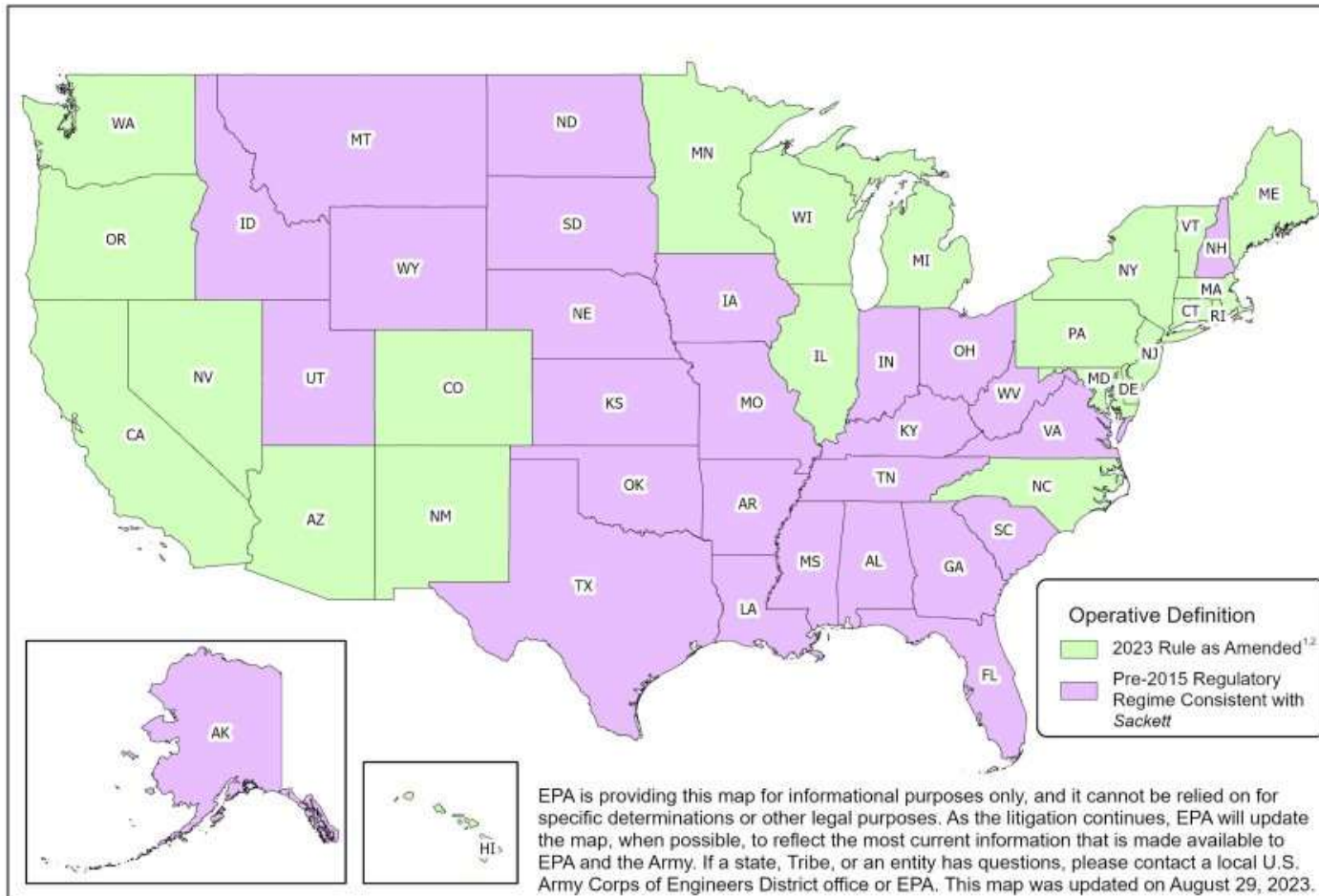
Clean Water Act (CWA)

40 CFR 120.2(a) - **Waters of the United States means:**

- (1) Waters which are:
 - (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - (ii) The territorial seas; or
 - (iii) Interstate waters;
- (2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
- (3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
- (4) Wetlands adjacent to the following waters:
 - (i) Waters identified in paragraph (a)(1) of this section; or
 - (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
- (5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

Current WOTUS Definition

Operative Definition of "Waters of the United States"



¹Also operative in the U.S. territories and the District of Columbia

²The pre-2015 regulatory regime implemented consistent with *Sackett* is operative for the Commonwealth of Kentucky and Plaintiff-Appellants in *Kentucky Chamber of Commerce, et al. v. EPA* (No. 23-5345) and their members (Kentucky Chamber of Commerce, U.S. Chamber of Commerce, Associated General Contractors of Kentucky, Home Builders Association of Kentucky, Portland Cement Association, and Georgia Chamber of Commerce).

NPDES Permitting

- ▶ 40 CFR 122 permitting covers multiple program areas.
 - ▶ Animal Feeding Operations
 - ▶ Aquaculture
 - ▶ Bio-solids
 - ▶ Forest Roads
 - ▶ Industrial Wastewater
 - ▶ Municipal Wastewater
 - ▶ National Pretreatment Program
 - ▶ Pesticide Permitting
 - ▶ Stormwater
 - ▶ Vessels Incidental Discharge Permitting
 - ▶ Water Quality Trading
 - ▶ Whole Effluent Toxicity (WET)

NPDES: Industrial Wastewater

Discharge to POTW (Indirect)

- Discharge industrial wastewater to municipality.
 - Permitted directly with POTW.
 - Categorical (40 CFR Subpart N)
 - Significant Industrial User (SIU)
 - Depends on operation, pollutants, and amount of discharge.

Direct Discharge

- Directly discharge industrial wastewater to WOTUS.
 - Follow NPDES permitting application process

NPDES: Stormwater

- **Discerning if a permit is needed...**
 - What is my SIC Code? Is it covered?
 - If it is covered, yes.
 - Discharge from a point source into a WOTUS
 - Yes
 - Discharge into a municipal sewer system
 - Maybe, ask your state permitting authority
 - Sheet flow?
 - Look at the State General Permit

NPDES: Stormwater

Two kinds of NPDES permits

1. General NPDES Permit

- ▶ Submit a notice of intent (NOI)
- ▶ The general permit is already issued by the permitting authority.
- ▶ By submitting an NOI, you are telling the agency that you intend to be covered and informing them of the basic information about the planned discharge from your facility.

NPDES: Stormwater

2. Individual Permit

- ▶ Regulatory agency decides that upon review of a facility, a permit specifically tailored for that facility is required.
- ▶ Decision is based upon
 - ▶ Type of activity
 - ▶ Nature of discharge
 - ▶ Receiving water quality



Stormwater Pollution Prevention Plan (SWPPP or SWP3)

Plan must contain:

- ▶ Stormwater pollution prevention team
- ▶ Site description
- ▶ Summary of potential pollutant sources
- ▶ Description of control measures
- ▶ Schedules and procedures
- ▶ Signature requirements – Fiduciary Ability to Enact

<https://www.epa.gov/npdes/developing-stormwater-pollution-prevention-plan-swppp>

Developing a Stormwater Pollution Prevention Plan (SWPPP)

Instructional resources for developing effective Stormwater Pollution Prevention Plans (SWPPP).

You may need a PDF reader to view some of the files on this page. See EPA's [About PDF page](#) to learn more.

- [Developing Your Stormwater Pollution Prevention Plan \(PDF\)](#) (50 pp, 3 MB)
- [EPA Example Construction SWPPP: Medium-Sized \(20-acre\) Residential Subdivision \(PDF\)](#) (73 pp, 2 MB)
- [EPA Example Construction SWPPP: Small Commercial Site \(< 5 acres\) \(PDF\)](#) (56 pp, 1 MB)
- [Stormwater Pollution Prevention for Small Residential Construction Sites Brochure \(PDF\)](#) (3 pp, 4 MB)
- [Stormwater Pollution Prevention for Small Residential Construction Sites Brochure, Two-Page Printer-Friendly Version \(PDF\)](#) (2 pp, 4 MB)
Best printed on 11" x 17" paper

[Contact Us](#) to ask a question, provide feedback, or report a problem.

Oil Pollution Control Act

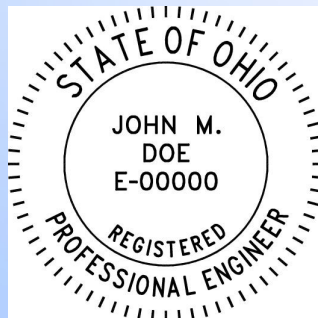
- ▶ Oil Pollution Prevention regulations set forth in the Clean Water Act Separate from NPDES Permit
- ▶ The goal of this regulation is to prevent oil from reaching waters of the United States in the event of an oil discharge.
- ▶ Required if a facility has an oil storage capacity of 1,320 U.S. gallons (above ground) or 42,000 U.S. gallons completely buried must have Spill Prevention, Control and Countermeasure (SPCC) Plan.

Spill Prevention, Control and Countermeasure (SPCC)

Plan must contain:

- ▶ Equipment and procedures to prevent and respond to an oil spill
- ▶ Site layout and location of all oil storage containers
- ▶ Oil storage containers and sized secondary containment and overfill prevention
- ▶ Training and employee participation

REMEMBER: The SPCC plan must be certified by a Professional Engineer (PE)



40 CFR 112.7

https://www.ecfr.gov/cgi-bin/text-idix?c=ecfr&SID=b843807afdc641b203ffc44aa671d36&tpl=/ecfrbrowse/Title40/40cfr112_main_02.tpl



Resources

- NPDES Overview - <https://www.epa.gov/npdes>
- SPCC Inspectors Guide - <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/spcc-guidance-regional-inspectors>
- NPDES Permit Basics <https://www.epa.gov/npdes/npdes-permit-basics>
- Developing a SWPPP- <https://www.epa.gov/npdes/developing-stormwater-pollution-prevention-plan-swppp>
- US Army Corps of Engineers <https://www.usace.army.mil/>

Emergency Planning and Community Right to Know (EPCRA)



EPCRA Chemical *Storage* Reporting



	Section 302	Section 311	Section 312
Frequency	One-time	One-time	Annual
Chemicals	EHS	EHS & GHS	EHS & GHS
Thresholds	EHS TPQ	TPQ/500 lbs. EHS 10,000 lbs. GHS	TPQ/500 lbs. EHS 10,000 lbs. GHS
Send to	SERC	SERC, LEPC, Fire Dept	SERC, LEPC, Fire Dept
Deadline	Within 60 days of acquiring EHS	Within 90 days of acquiring GHS	March 1st

EHS - Extremely Hazardous Substances

GHS - Generally Hazardous Substances

TPQ - Threshold Planning Quantities

SERC - State Emergency Response Commission

LEPC - Local Emergency Planning Committee
(TEPC - Tribal Emergency Planning Committee)



EPCRA Chemical Reporting



	Section 304	Section 313 (Form R)
<i>Frequency</i>	At Occurrence	Annual
<i>Chemicals</i>	EHS/CHS	313-reportable
<i>Thresholds</i>	EHS/CHS RQ	Manufacture – 25,000 lbs Process – 25,000 lbs Otherwise Use – 10,000 lbs Less for CSCs and PFAs
<i>Notify/ Send to</i>	SERC & LEPC (EHS or CHS) National Response Center (CHS)	U.S. EPA using TRI-Me
<i>Deadline</i>	Immediately (w/in 30 min) verbal 30 days written	July 1

EHS - Extremely Hazardous Substances
 CHS - CERCLA Hazardous Substances
 RQ - Reportable Quantity
 SERC - State Emergency Response Commission
 LEPC - Local Emergency Planning Committee
 CSC - Chemicals of Special Concern
 PFAs - Per- and Polyfluoroalkyl Substances

How Do I Find...EHS TPQ? RQ?

- Title III Consolidated List-of-Lists (chemical lists, TPQs, RQs) <https://www.epa.gov/epcra/consolidated-list-lists>
 - By Name and CAS Number
 - Available in PDF or Excel
 - Also includes F, K, D haz waste codes, radionuclides and PFAS chemicals by name

Microsoft Excel Version of EPCRA CERCLA CAA 112(r) Consolidated List of Lists, December 2022 - Saved

Search for tools, help, and more (Alt + Q)

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NAME	CAS Sort Value	CAS/313 Category Codes	Section 302 (EHS) TPQ	Section 304 (EHS) RQ	CERCLA RQ	Section 313	RCR ACO DE	CAA 112(r) TQ
Dibutyltin dichloride	463181	63-18-1				313		
Dibutyltin dichloride	463181	63-18-1				313		
Dicamba	1918009	1918-00-9			1,000	313		
Dichlobenil	1194656	1194-65-6			100			
Dichlone	117806	117-80-6			1			
Dichloran	99309	99-30-9				313		
o-Dichlorobenzene	95501	95-50-1			100	X	U070	
Dichlorobenzene	25321226	25321-22-6			100	X		
1,2-Dichlorobenzene	95501	95-50-1			100	313	U070	
1,3-Dichlorobenzene	241731	241-73-1			100	313	U071	
1,4-Dichlorobenzene	106467	106-46-7			100	313	U072	
Dichlorobenzene (mixed isomers)	25321226	25321-22-6			100	313		
Dichlorobenzidine	1331471	1331-47-1						
3,3'-Dichlorobenzidine	91941	91-94-1			1	313	U073	
3,3'-Dichlorobenzidine dihydrochloride	612839	612-83-9				313		
3,3'-Dichlorobenzidine sulfate	64969342	64969-34-2				313		
Dichlorobromomethane	75274	75-27-4			5,000	313		
trans-1,4-Dichloro-2-butene	110376	110-37-6	500	500		313		
trans-1,4-Dichlorobutene	110376	110-37-6	300	300		X		
1,4-Dichloro-2-butene	784410	784-41-0			1	313	U074	
1,2-Dichloro-1,1-difluoroethane	1649087	1649-08-7				313		
Dichlorodifluoromethane	75718	75-71-8			5,000	313	U075	
1,1-Dichloroethane	75343	75-34-3			1,000	X	U076	
1,2-Dichloroethane	107062	107-06-2			100	313	U077	
1,1-Dichloroethylene	75354	75-35-4			100	X	U078	10,000
1,2-Dichloroethylene	136605	136-60-5			1,000		U079	
1,2-Dichloroethylene	340390	340-39-0				313		
Dichloroethyl ether	111444	111-44-4	10,000	10	10	X	U025	
1,1-Dichloro-1-fluoroethane	1717066	1717-06-6				313		
Dichlorofluoroethane	75434	75-43-4				313		
Dichloroisopropyl ether	108601	108-60-1			1,000	X	U027	
Dichloromethane	75092	75-09-2			1,000	313	U080	
2,6-Dichloro-2-methoxybenzoic acid	1918009	1918-00-9			1,000	X		

List of Lists by name F code Haz waste K code Haz waste D code Haz waste Radionuclides PFAS Chemicals by name

We'd love your feedback! We have just two questions for you.

Give Feedback to Microsoft

Resources

- ▶ EPCRA Overview - <https://www.epa.gov/epcra/what-epcra>
- ▶ 40 CFR Parts 302, 355, 370 and 372
- ▶ Federal TRI website (reporting forms and instructions, Q&A, chemical and industry specific guidance) <https://www.epa.gov/toxics-release-inventory-tri-program>

- ▶ State SARA Tier II Reporting Guidance
 - ▶ Ohio Tier II Reporting - <https://epa.ohio.gov/divisions-and-offices/air-pollution-control/state-emergency-response-commission/chemical-reporting>
 - ▶ Kentucky Tier II Reporting - [Kentucky Emergency Management](#)
 - ▶ Indiana Tier II Reporting - [IDEM: Pollution Prevention: Emergency Planning And Community Right-To-Know Act \(EPCRA\)](#)
 - ▶ Michigan Tier II Reporting - [SARA Title III Tier II Reporting \(michigan.gov\)](#)

Hazardous Waste

**CAUTION
HAZARDOUS
WASTE**

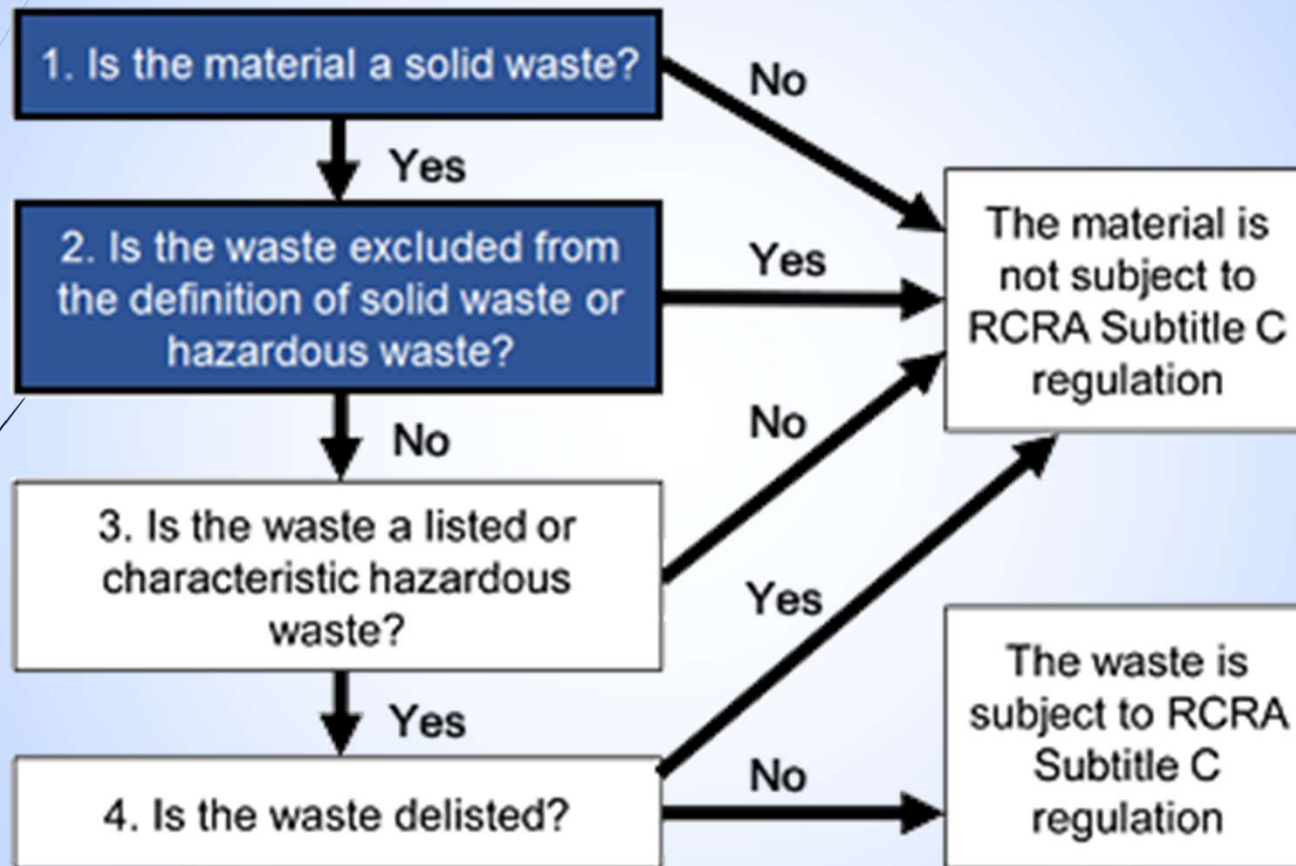


Hazardous Waste

- Regulations [Regulations | US EPA](#)
 - 40 CFR 260 – 282 (*code of Federal Regulations*)
 - 262 – Generators Rules
 - 263 – Transporters Rules
 - 264 – TDSF Rules (Treatment Storage and Disposal Facility)

Hazardous Waste Determination

The Hazardous Waste Identification Process



Definition of Solid Waste

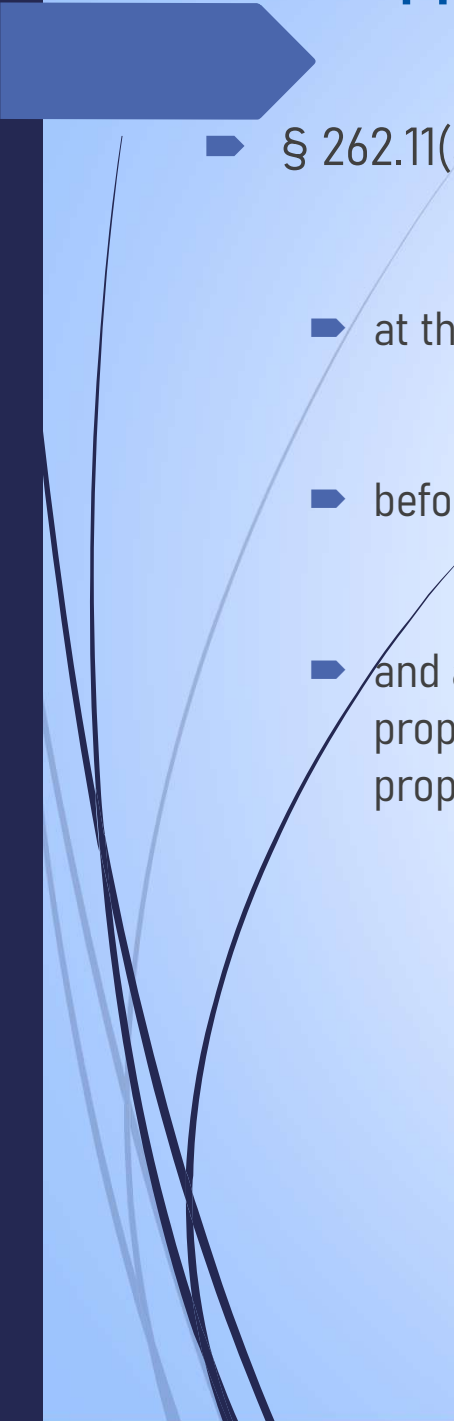
Per EPA, a solid waste is any material that is discarded by being:

- ▶ Abandoned: The term abandoned means thrown away. A material is abandoned if it is disposed of, burned, incinerated, or recycled.
- ▶ Inherently Waste-Like: Some materials pose such a threat to human health and the environment that they are always considered solid wastes; these materials are considered to be inherently waste-like. Examples of inherently waste-like materials include certain dioxin-containing wastes.

Definition of Solid Waste

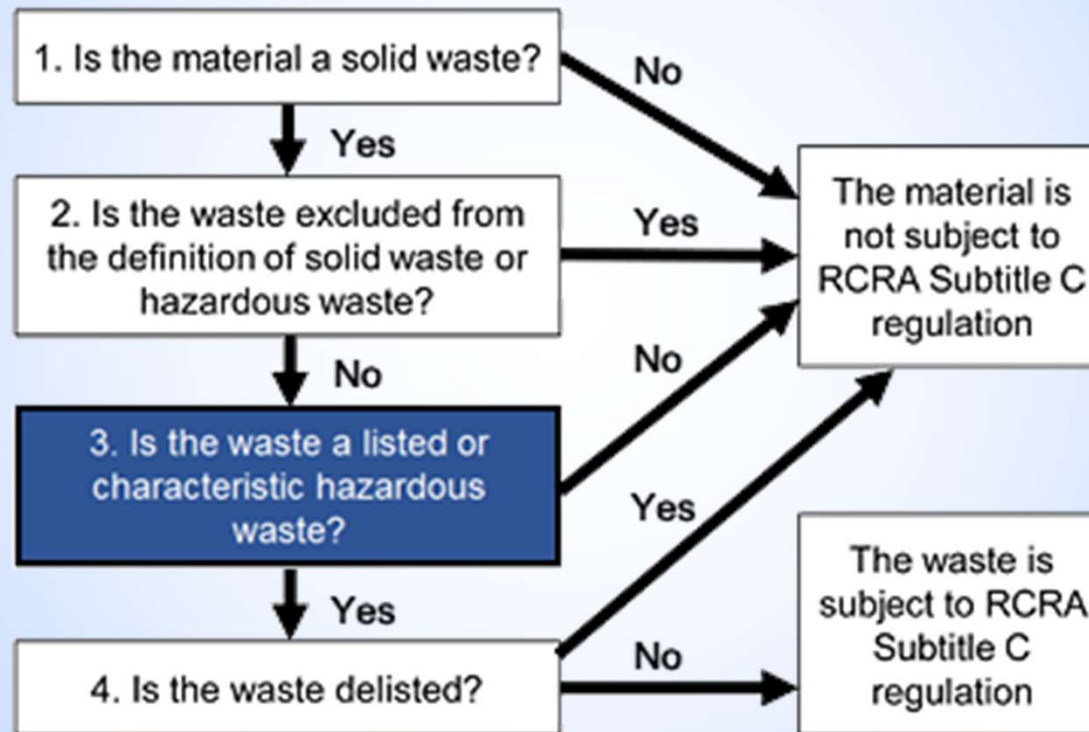
- ▶ **A Discarded Military Munition:** Military munitions are all ammunition products and components produced for or used by the U.S. Department of Defense (DOD) or U.S. Armed Services for national defense and security. Unused or defective munitions are solid wastes when:
 - ▶ abandoned (i.e., disposed of, burned, incinerated) or treated prior to disposal;
 - ▶ rendered nonrecyclable or nonusable through deterioration; or
 - ▶ declared a waste by an authorized military official. Used (i.e., fired or detonated) munitions may also be solid wastes if collected for storage, recycling, treatment, or disposal.
- ▶ **Recycled in Certain Ways:** A material is recycled if it is used or reused (e.g., as an ingredient in a process), reclaimed, or used in certain ways (used in or on the land in a manner constituting disposal, burned for energy recovery, or accumulated speculatively). Specific exclusions to the definition of solid waste are listed in the Code of Federal Regulations (CFR) at [40 CFR section 261.4\(a\)](#). Many of these exclusion are related to recycling.

Hazardous Waste Determination

- 
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- ▶ § 262.11(a) The hazardous waste determination for each solid waste must be made
 - ▶ at the point of waste generation,
 - ▶ before any dilution, mixing, or other alteration of the waste occurs,
 - ▶ and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change.

Hazardous Waste

The Hazardous Waste Identification Process

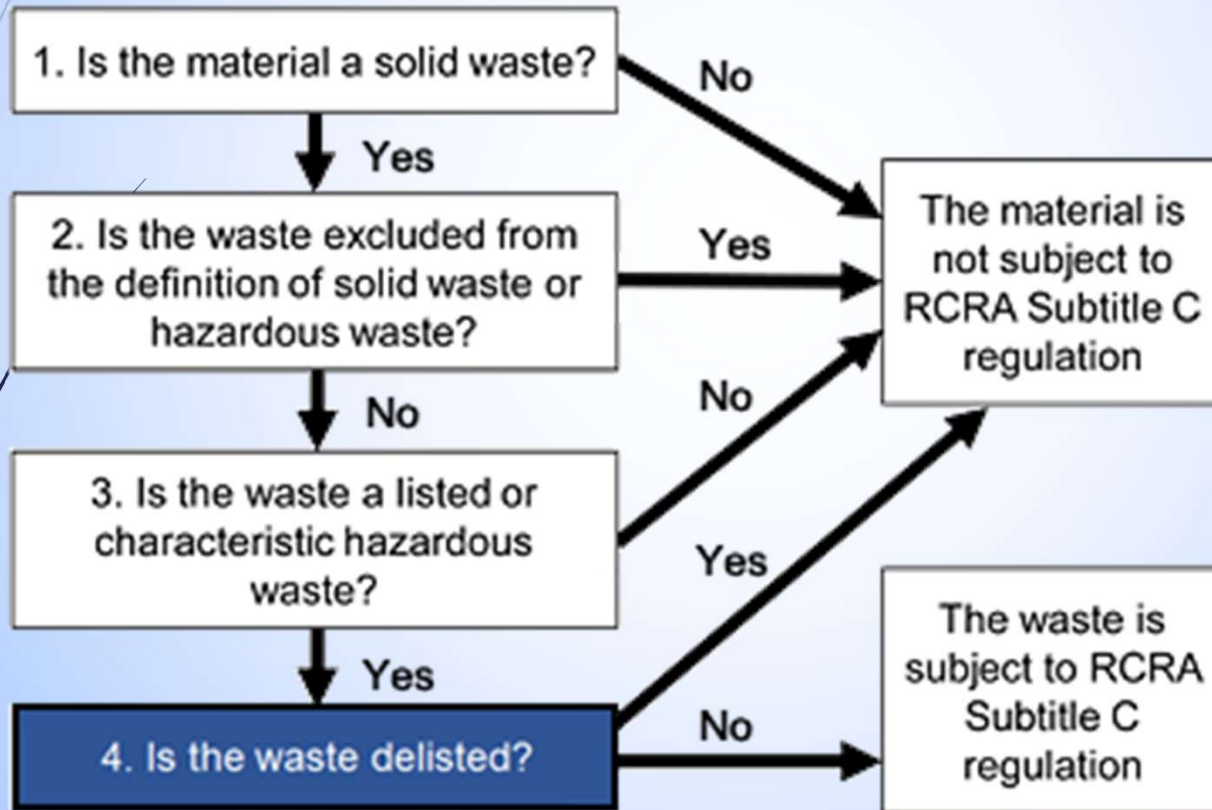


Is It Hazardous Waste?

- An item is considered to be hazardous waste if it meets one or more of the following characteristics:
 - Mixture contains a listed hazardous waste and a non-hazardous waste.
 - Material meets the definition of one of the following:
 - Ignitability (flashpoint < 60°C or supports combustion)
 - Reactivity (e.g., water reactives, cyanides, explosives, unstable chemicals)
 - Corrosivity (pH < 2 or > 12.5)
 - TCLP toxicity (e.g., pesticides, heavy metals, organic compounds, see Waste Analysis Plan, Attachment B)
 - Material is listed in 40CFR 261 Subpart D (see Waste Analysis Plan, Attach. B)
 - Material is not excluded from regulations.

Is It Hazardous Waste?

The Hazardous Waste Identification Process



Hazardous Waste Generator?

- ▶ Determine your generator status: Monthly Generated Amounts
 - ▶ VSQG - ≤ 100 kg
220 lb or $\frac{1}{2}$ Drum
 - ▶ SQG - 100 - 1,000 kg
2,200 lb or $\frac{1}{2}$ to 5 Drums
 - ▶ LQG - $\geq 1,000$ kg
 $\geq 2,200$ lb or 5 Drums

Hazardous Waste Labeling

- ▶ The EPA requires that the generator “mark each hazardous waste container with a capacity of 119 gallons or less with the following words and information”:
 - ▶ HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.
 - ▶ Generator's Name and Address _____.
 - ▶ Generator's EPA Identification Number _____.
 - ▶ Manifest Tracking Number _____.

Hazardous Waste Labeling

Name and address of facility

Date drum became full and transferred to accumulation area

HAZARDOUS WASTE

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.
IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY
AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

PROPER D.O.T. SHIPPING NAME _____ UN OR NAJ _____

GENERATOR INFORMATION:
NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____
EPA ID NO. _____ EPA WASTE NO. _____
ACCUMULATION START DATE _____ MANIFEST DOCUMENT NO. _____

HANDLE WITH CARE!
CONTAINS HAZARDOUS OR TOXIC WASTES

Manifest number

Hazardous Waste Requirements (Depending on Generator Status)

- ▶ Training Requirements
 - ▶ If “dealing” with waste
 - ▶ RCRA Training
 - ▶ If signing a manifest
 - ▶ RCRA Training
 - ▶ DOT Training

Hazardous Waste Requirements (cont.)

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➤ Reporting

- Biennial Waste (Federal)
- Annual Manifest Report (Indiana – LQG, SQG)

➤ Recordkeeping

- Hazardous waste characterizations
- Hazardous waste quantities
- Manifests
- Training records

Resources

- ▶ Ohio Haz Waste Reporting Rules
https://www.epa.ohio.gov/derr/hazwaste/annual_report
- ▶ RCRA Overview -
<https://www.epa.gov/rcra>

- State websites
- Google search
- Envirofacts
- EPA Eco
- Universal Waste

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Universal Waste

- ▶ If not handled as universal waste, then must be handled as hazardous waste

- ▶ Federal universal wastes [Universal Waste | US EPA](#)
 - ▶ Lamps
 - ▶ Mercury Containing Equipment
 - ▶ Pesticides
 - ▶ Discarded Batteries
 - ▶ Aerosol cans

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Universal Waste Requirements

- ▶ Store onsite less than 12 months
- ▶ Compatible container, closed and labeled as Universal Waste
- ▶ Training
- ▶ Spill cleanup
- ▶ Notification by generator

- ▶ Be aware of state specific requirements
 - ▶ [State Universal Waste Programs in the United States | US EPA](#)

Other Important Environmental Regulations

- ▶ TSCA
 - ▶ TSCA addresses the production, importation, use, and disposal of specific chemicals
 - ▶ Chemical Data Reporting (every 4 years)- Report Due September 2024
https://ofmpub.epa.gov/sor_internet/registry/substreg/LandingPage.do
- ▶ FIFRA
 - ▶ Regulation of pesticide distribution, sale, and use.
 - ▶ If use pesticides in process, may require registration
- ▶ Underground Storage Tanks
 - ▶ Depending on material stored, could have training, monitoring, recordkeeping, and reporting requirements
- ▶ Radioactive
 - ▶ Register equipment that contains radioactive material

State/Local Regulations

- ▶ Noise
 - ▶ Check with local entity
- ▶ Odor
 - ▶ 401 KAR 53:010 – A mixture of one volume of ambient air and seven volumes of odorless air shall have no detectable odor at any time.

Keys to Compliance

- Know your permit (highlight action items and reporting deadlines)
- Stay on top of recordkeeping requirements (avoid exceedances, spot issues early)
- Be aware of operational and personnel changes at your site (new permits needed, recordkeeping continuity, signatory changes)
- Communicate with site personnel regularly, on all levels (stay on top of changes, helps leaders and coworkers stay vigilant and invested in compliance)
- Follow regulatory changes (state and federal list-serves)
- Don't be afraid to reach out to local regulators

Questions?



Biographical Information

**Hope Manning, CEP, Vice President, Engineering and Consulting
Environmental Quality Management, Inc.,
1800 Carillon Boulevard, Cincinnati, Ohio 45240
513-742-7238 hmanning@eqm.com**

Hope has over 16 years of technical and compliance management experience in the environmental field in both consulting and industry. She has been involved in a broad range of programs including air compliance and permitting, NESHAP Boiler GACT compliance, NPDES permitting and compliance, SPCC, and SWPP Plans generation, and EPCRA SARA Title III, Section 312 and 313 reporting, and auditing. Currently Hope leads the Engineering and Consulting group at EQM which is comprised of individuals who have expertise in air, water, SPCC, and EPCRA reporting. She is also the primary environmental auditor for EQM. Prior to her joining EQM in 2015, Hope was the Corporate Environmental Compliance Manager at Darling Ingredients, Inc., and was responsible for environmental compliance to federal, state, and local requirements for over 50 locations in over 15 states. These activities included assisting in minor and major permitting, regulatory compliance, regulatory interpretation, regulatory reporting, permit compliance and internal auditing. Prior to her time at Darling Ingredients, Inc., Hope was the Water Quality Specialist for The Seminole Tribe of Florida. She was responsible for the water quality program for all surface waters on the Seminole Tribe of Florida reservation lands. Because the Seminole Tribe of Florida is a federally recognized Indian Tribe, she dealt directly with USEPA Region 4 personnel on behalf of the Seminole program.

Hope holds a Bachelor of Science Degree in Chemical Engineering from The University of Cincinnati.

**Heidi Reeb, Health Safety & Environment Leader
The Procter & Gamble Company
Fabric & Home Care Innovation Center, Cincinnati, Ohio 45224
reeb.hl@pg.com**

Heidi has 32 years of R&D experience in the Household Care and the Baby, Feminine & Family Care organizations at P&G. She has a broad range of experience in the formulation and development of household care products to delight consumers and, at the same time, meet regulatory requirements to make antimicrobial claims. She is the Global Core Competency Owner for Biological Materials Control and is qualified in Industrial Hygiene & Safety. Currently Heidi leads the Environmental programs at the F&HCIC and GPDF facilities. Responsibilities include Air Emissions, Solid Waste, Site Water Systems, Spill Protection and Other areas such as SARA reporting and Noise control. Activities include construction, remodeling and building demolition projects; regulatory compliance and reporting; auditing; and safety training. Heidi holds a Bachelor of Arts Degree in Microbiology from Miami University, Ohio.