

# Environmental Basics from a Novice and Pros

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# Presentation Content

- Regulations, Permitting, recordkeeping and reporting obligations for each regulation for
  - Air,
  - Water,
  - Hazardous Waste,
  - Underground Storage Tanks, and
  - Community Right to Know and Chemical Reporting
- Practical advice and sources of information for managing environmental compliance.

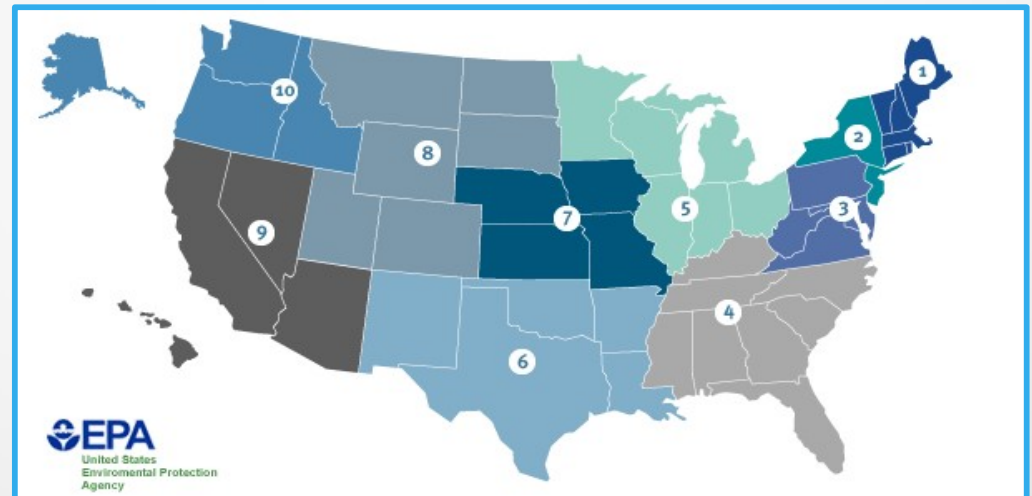


# Air



# State Implementation Plans

- Regulations used by states, territories, or local air districts to meet and maintain NAAQS for criteria pollutants:
  - \* ground level ozone (O<sub>3</sub>)
  - \* particulate matter (PM)
  - \* carbon monoxide (CO)
  - \* sulfur dioxide (SO<sub>2</sub>)
  - \* nitrogen dioxide (NO<sub>2</sub>)
  - \* lead (Pb)



# 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 <sub>x</sub> , SO <sub>2</sub> , 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

# 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)



# Acid Rain Program

## 40 CFR Parts 72-78



- Mandated emission reductions for SO<sub>2</sub> and NO<sub>x</sub> from the power sector
- First national cap and trade emission program in the U.S.
- Set a permanent cap on the total amount of SO<sub>2</sub> that could be generated by electric generating units (EGUs) and distributed allowances that could be traded/sold
- Allowed flexibility for individual units to decide how to comply



# 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



# 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)

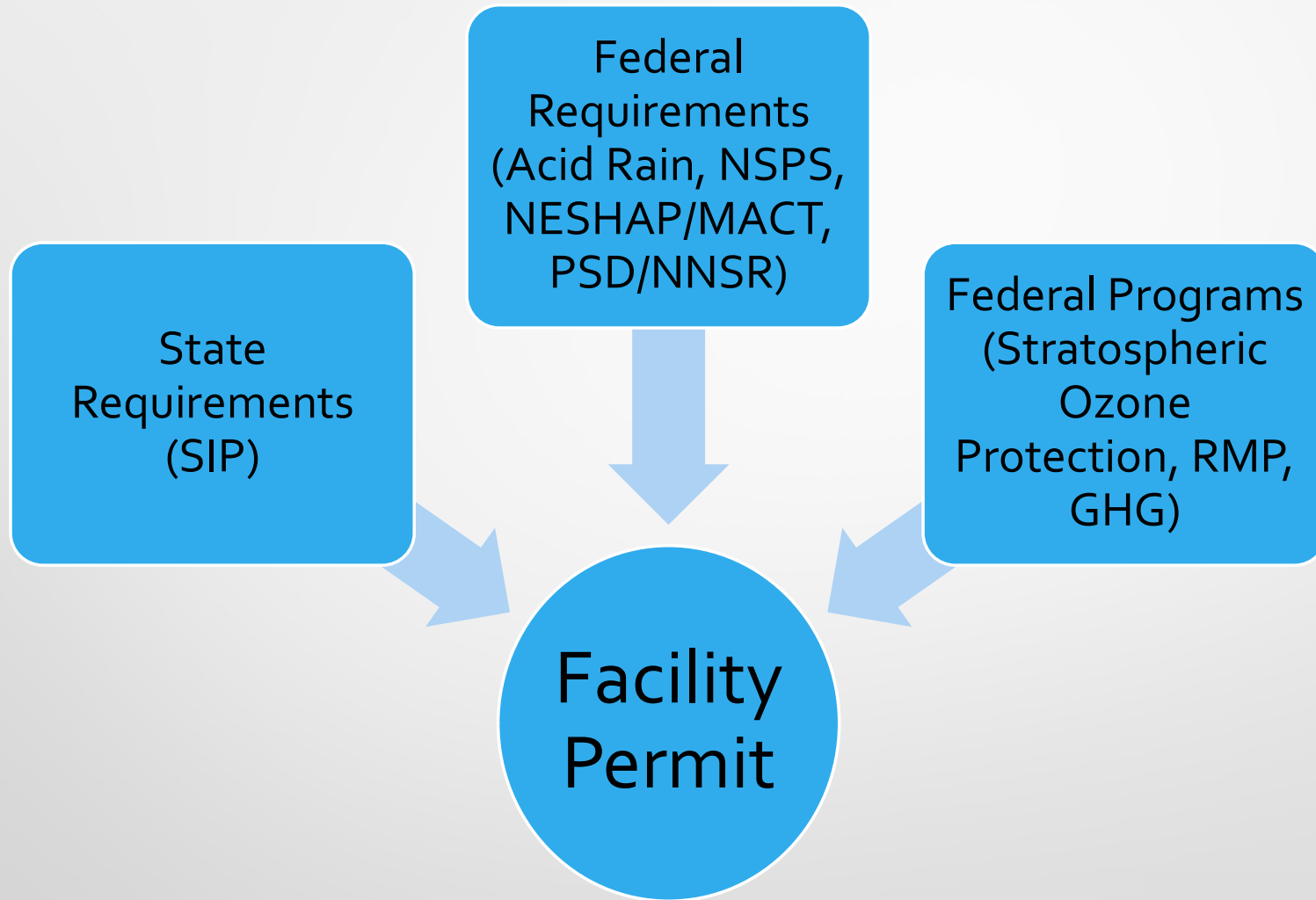


# Greenhouse Gas Reporting Program

## 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 ( $\text{CO}_2\text{e}$ ) 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

# Permit Content



# 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

# Resources

## Novice

- 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

## Pros

- 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/USGP00FR/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 the “National Pollution Discharge Elimination System” (NPDES).
  - 40 CFR 122
  - 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

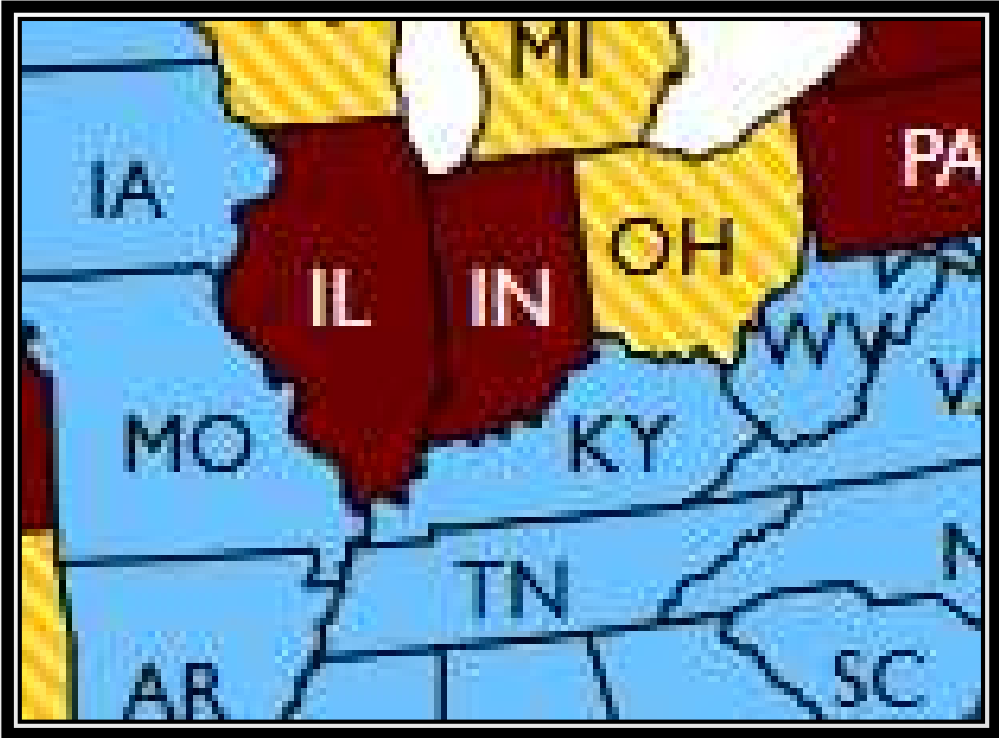
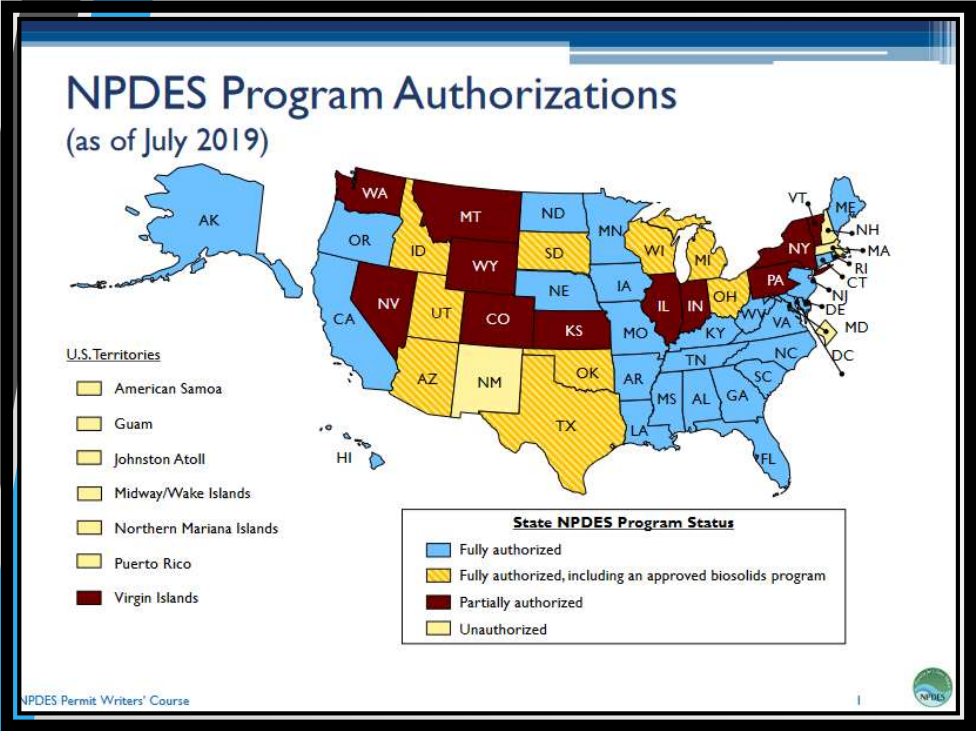


# Clean Water Act (CWA)

- **Water of the United States**
  - Pre-2015 definition which is based on 40 CFR 230.3(s)
    - Commerce and recreation
      - Can be used for recreation
      - Fish and shellfish for commerce
      - Used or could be used for industrial purposes
    - Subject to ebb and flow of the tide
    - Wetlands



# NPDES Permitting





# 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 permitting application process as General Permit



# 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)

- Under the Industrial Stormwater General NPDES permit, you are required to have a SWP3.
  - ...and usually required in individual permits
- The SWP3 identifies the potential sources of pollution at a facility, and what the facility is doing to curb the impact (BMPs) Best Management Practices\*
- Sampling is required once per quarter for all identified point sources (Outfalls). Requirements vary based on industry (SIC code).





# 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.



# Spill Prevention, Control and Countermeasure (SPCC)

- Part of the 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.



# 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 overflow prevention
- Training and employee participation



40 CFR 112.7

[https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=b843807afdc641b203ffe44aa671d36&tpl=/ecfrbrowse/Title40/40cfr112\\_main\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=b843807afdc641b203ffe44aa671d36&tpl=/ecfrbrowse/Title40/40cfr112_main_02.tpl)



# Spill Prevention, Control and Countermeasure (SPCC)

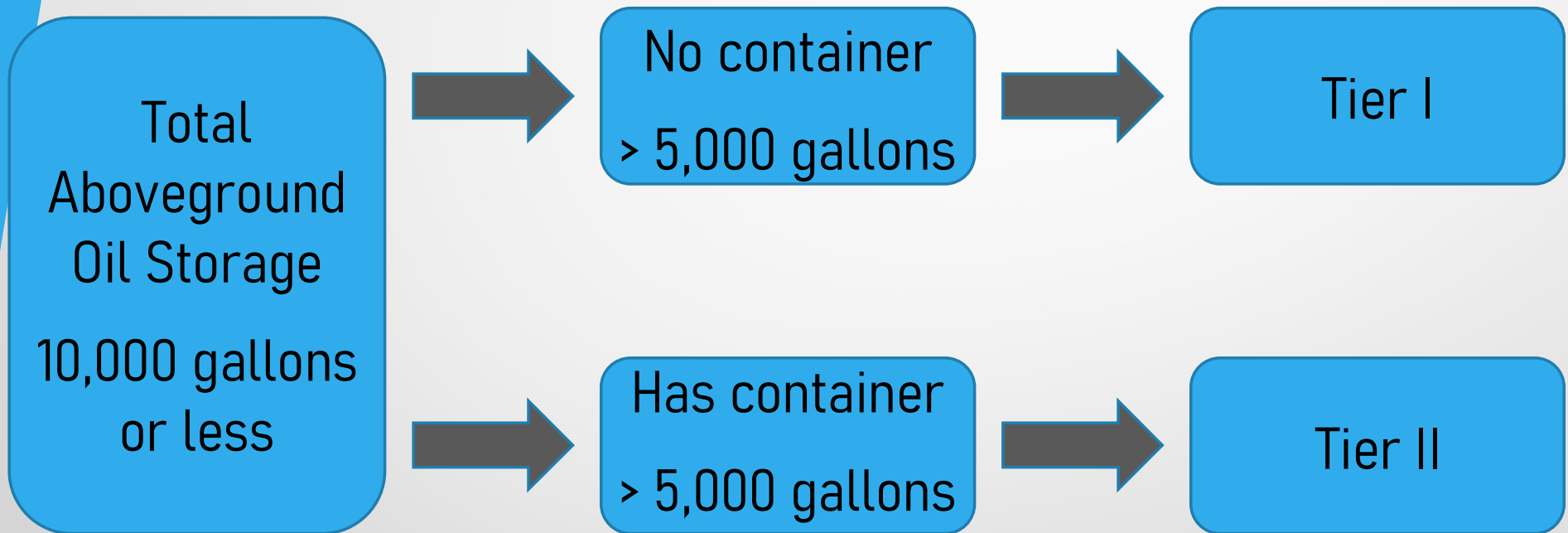
REMEMBER: The SPCC plan must be certified by a Professional Engineer (PE)

- Unless you claim to be a qualified facility, this puts all the liability on the site....



# Spill Prevention, Control and Countermeasure (SPCC)

## Tier I vs. Tier II



# Spill Prevention, Control and Countermeasure (SPCC)

## Tier I vs. Tier II

### Tier I

- Complete and self-certify Plan template (App. G of 40 CFR 112)

### Tier II

- Prepare a self-certified Plan in accordance with all applicable requirements of 40 CFR 112.7 and subparts B or C of the rule





# Resources

## Novice

- 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/>

## Pros

- State water websites
- NEC/General Permit guidances
- Envirofacts
- EPA Eco



# Emergency Planning and Community Right to Know (EPCRA)



# EPCRA Chemical *Storage* Reporting



	Section 302	Section 311	Section 312 (Tier II)
<i>Frequency</i>	One-time	One-time	Annual
<i>Chemicals</i>	EHS	GHS	EHS & GHS
<i>Thresholds</i>	EHS TPQ	10,000 lbs	TPQ/500 lbs EHS 10,000 lbs GHS
<i>Send to</i>	SERC	SERC, LEPC, Fire Department	SERC, LEPC, Fire Department
<i>Deadline</i>	Within 60 days of acquiring EHS	Within 90 days of acquiring GHS	March 1

EHS - Extremely Hazardous Substances  
 GHS - Generally Hazardous Substances  
 TPQ - Threshold Planning Quantities  
 SERC - State Emergency Response Commission  
 LEPC - Local Emergency Planning Committee

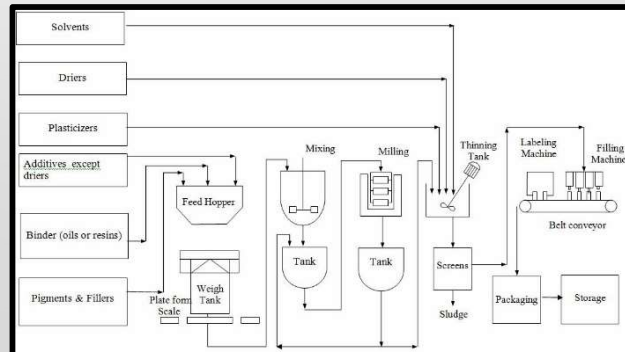


# EPCRA Chemical *Release* Reporting



	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





# Keys to Compliance

- Know the materials (and their components) used and stored at your site
- Don't forget ancillary operations (water treatment, byproduct processing/conditioning, contractor-operated processes)
- Be aware of changes (chemical/process) at your site which might require/affect these reports
- 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)
- Be aware of requirements and potential for reportable releases, have contact information readily available

# Resources

## Novice

- Ohio Rules - <https://epa.ohio.gov/dapc/serc>
- Ohio SERC Manual - [https://epa.ohio.gov/Portals/27/serc/SERC\\_Manual.pdf](https://epa.ohio.gov/Portals/27/serc/SERC_Manual.pdf)
- EPCRA Overview - <https://www.epa.gov/epcra/what-epcra>
- I know it's Wikipedia, but it does a good job explaining everything! - [https://en.wikipedia.org/wiki/Emergency\\_Planning\\_and\\_Community\\_Right-to-Know\\_Act](https://en.wikipedia.org/wiki/Emergency_Planning_and_Community_Right-to-Know_Act)

## Pros

- Title III Consolidated List-of-Lists (chemical lists, TPQs, RQs) <https://www.epa.gov/epcra/consolidated-list-lists>
- 40 CFR Parts 302, 355, 370 and 372
- State SARA Tier II Reporting Guidance
- Federal TRI website (reporting forms and instructions, Q&A, chemical and industry specific guidance)

<https://www.epa.gov/toxics-release-inventory-tri-program>

# Hazardous Waste

**CAUTION**  
**HAZARDOUS**  
**WASTE**



**EQM**  
AN ASRC INDUSTRIAL COMPANY



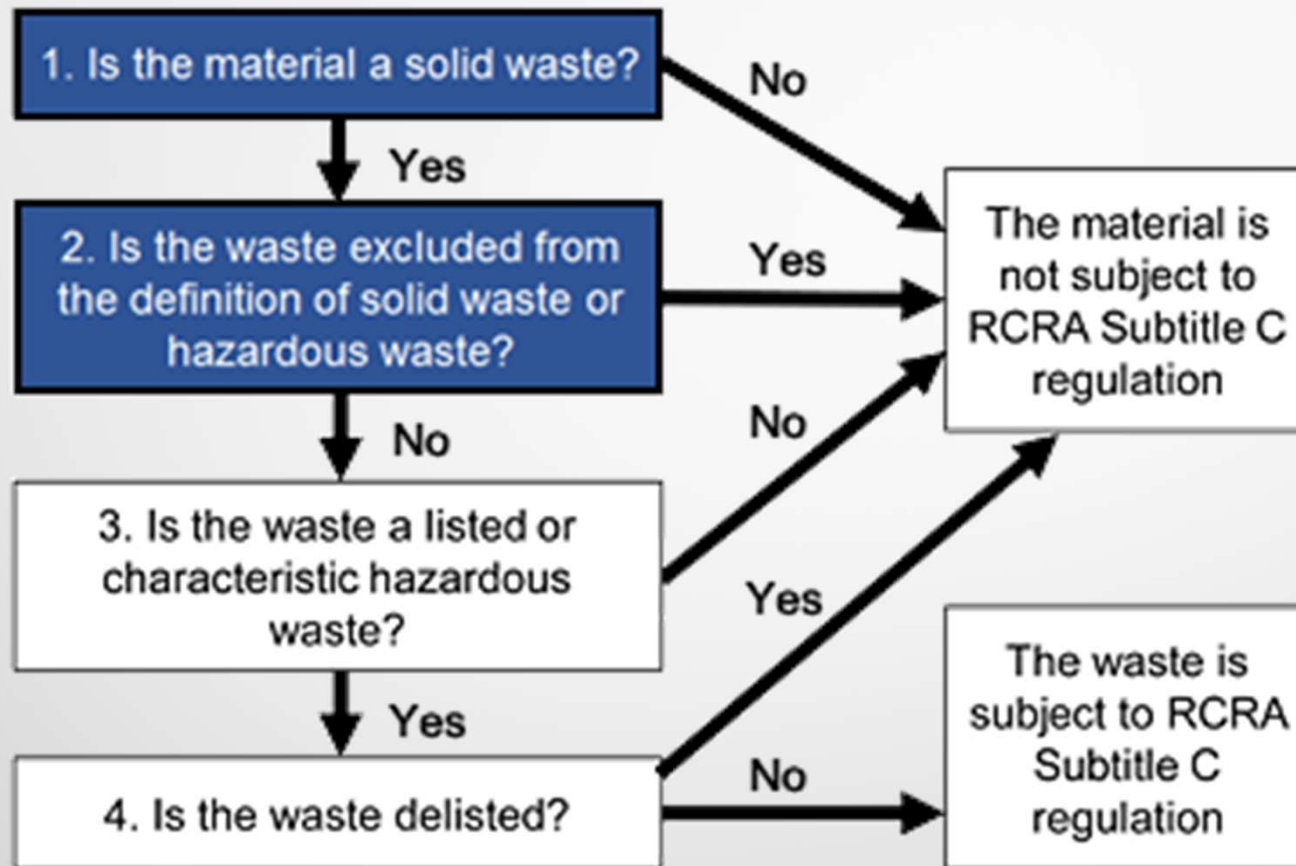
# Hazardous Waste

- Regulations
  - 40 CFR 260 – 273
    - 262 – Generators Rules
    - 263 – Transporters Rules
    - 264 – TDSF Rules
- Generator Statuses
  - Very Small Quantity Generator (VSQG)
  - Small Quantity Generator (SQG)
  - Large Quantity Generator (LQG)



# 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 sham 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.



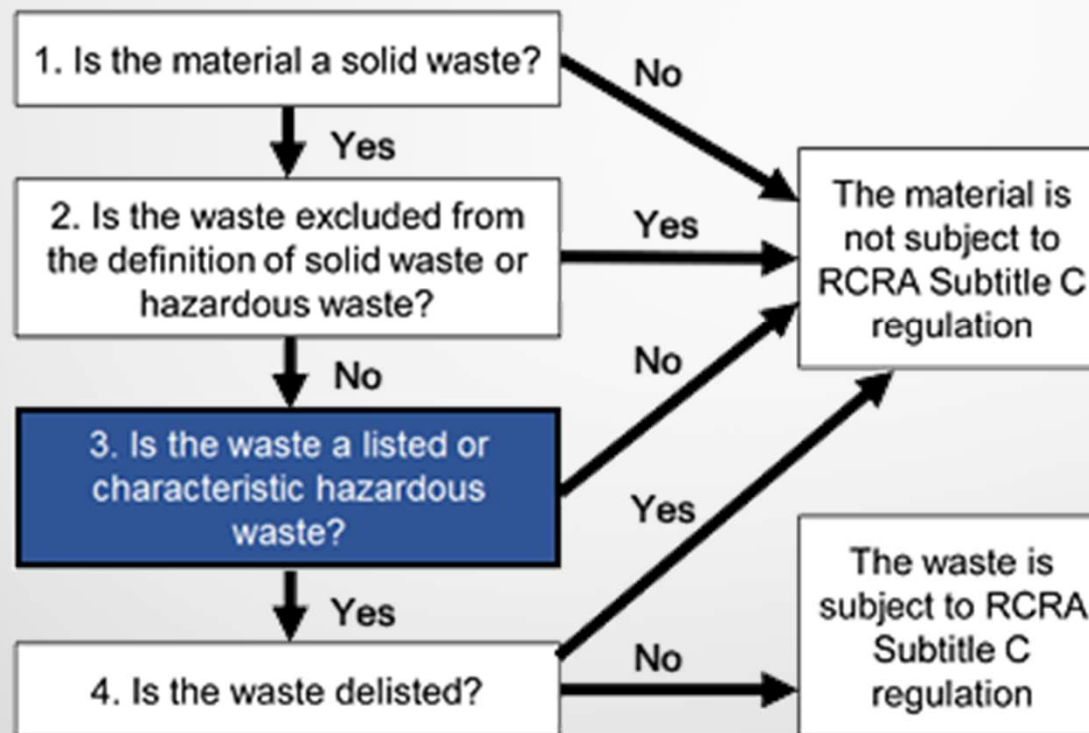
# Hazardous Waste Determination

- § 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?

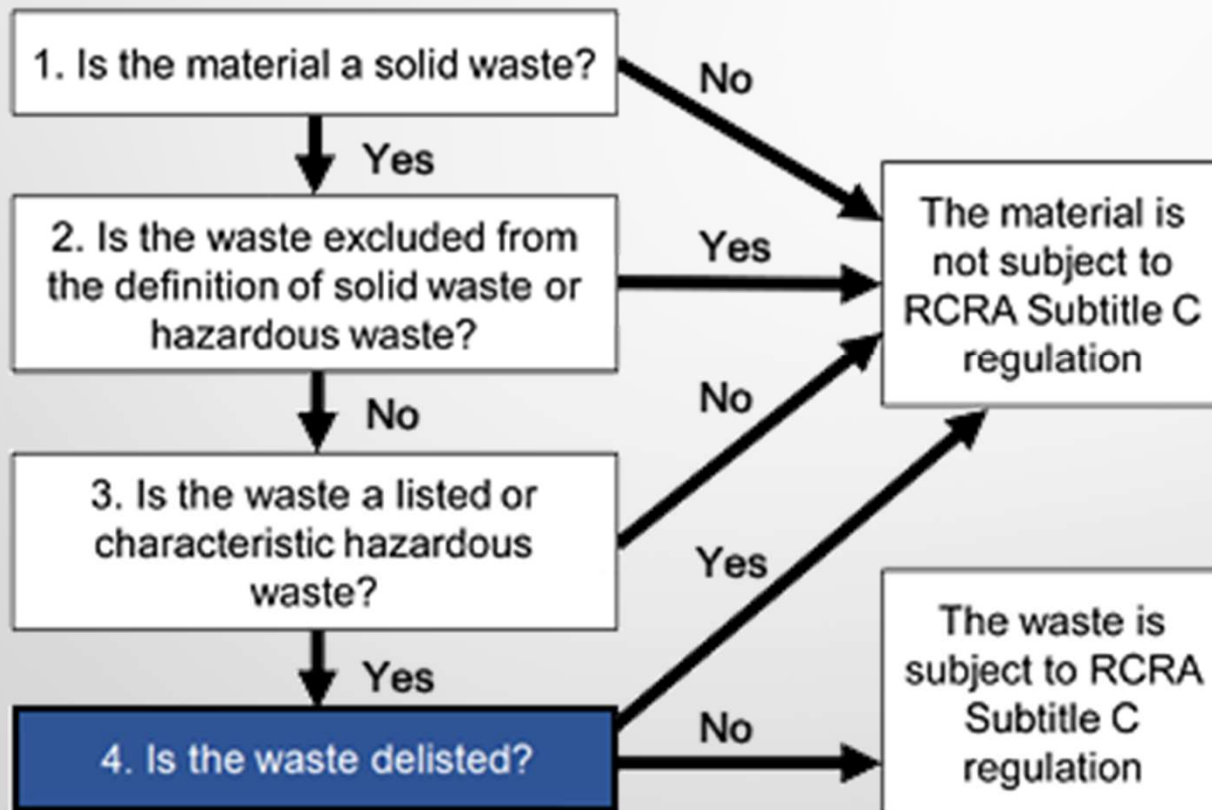
- An item is considered to be hazardous waste if it meets one or more of the following characteristics:
  - Mixture contains a listed hazardous waste and a non-hazardous waste.
  - Material meets the definition of one of the following:
    - Ignitability (flashpoint < 60°C or supports combustion)
    - 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



You have a hazardous waste



# Hazardous Waste Generator?

- Determine your generator status: Monthly Generated Amounts
  - VSQG -  $\leq 100$  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 NA# \_\_\_\_\_

**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.)

- Reporting
  - Biennial Waste (Federal)
  - Annual Manifest Report (Indiana – LQG, SQG)
- Recordkeeping
  - Hazardous waste characterizations
  - Hazardous waste quantities
  - Manifests
  - Training records



# Resources

## Novice

- Ohio Haz Waste Reporting Rules -  
[https://www.epa.ohio.gov/derr/hazwaste/annual\\_report](https://www.epa.ohio.gov/derr/hazwaste/annual_report)
- RCRA Overview -  
<https://www.epa.gov/rcra>

## Pros

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





# Universal Waste

- If not handled as universal waste, then must be handled as hazardous waste
- Federal universal wastes
  - Lamps
  - Mercury Containing Equipment
  - Pesticides
  - Discarded Batteries

# State Specific Universal Wastes

## Ohio

- Paint and Paint Related Waste
- Antifreeze
- Aerosol Containers

## Kentucky

- Aerosol Containers

## Indiana

- Aerosol Containers

# Universal Waste Requirements

- Store onsite less than 12 months
- Compatible container, closed and labeled as Universal Waste
- Training requirement + (Basic UW training)
- Spill cleanup requirement
- Notification by generator

# Other Important Environmental Regulations

- TSCA
  - TSCA addresses the production, importation, use, and disposal of specific chemicals
    - Chemical Data Reporting (every 4 years)- Last report September 2020  
[https://ofmpub.epa.gov/sor\\_internet/registry/substreg/LandingPage.do](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



# Questions?



## Biographical Information

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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.

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Ms. Bussard is the environmental engineer for the University of Cincinnati Utilities department. She is responsible for the utility's Predictive Emission Monitoring Systems (PEMS) as well as compliance with the site's Title V air permit and other applicable state federal and state regulations. Prior to joining the University of Cincinnati, Ms. Bussard worked in consulting with a breadth of multimedia environmental compliance knowledge, focused primarily in air and EPCRA. Ms. Bussard received a B.S in Civil Engineering and an M.S. in Environmental Engineering from the University of Cincinnati.

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After graduating from the University of Pikeville in 2019, Kenton began working as a consultant for Third Rock Consultants in Lexington, Kentucky. While there he assisted in stream and wetland monitoring, stream restoration projects, and watershed/stormwater management programs. In April of 2021, he transitioned into his current role as an Environmental Scientist for Environmental Quality Management's Engineering and Consulting (E&C) Group. In May of this year, he will be graduating from the University of Oklahoma with a Master of Environmental Science: Hydrology and Water Security degree.