

# Welcome to

## “Navigating the New Hazardous Waste Rules”

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# Presentation Overview and Outline

- ▶ History/Background of RCRA
- ▶ Goals of the Rule
- ▶ Rule Schedule
- ▶ Overview of the New Rule
  - ▶ Administrative changes
  - ▶ Aspects that are less stringent
  - ▶ Aspects that are more stringent
- ▶ Summary
- ▶ Q & A



# History/Background of RCRA

## RCRA: Resource Conservation and Recovery Act

Established by EPA in 1976

Aimed at “unregulated land disposal of discarded materials and hazardous wastes”

- Protect human health and the environment
- Conserve natural resources
- Reduce volume of waste generated
- Ensure wastes are managed responsibly

Source: Resource Conservation and Recovery Act, 1976



# History/Background of RCRA

## How is RCRA Effective?

- “Cradle to Grave” management of HW
- Moderate to substantial regulatory burden
- Significant fines for noncompliance

## Impacts on Regulated Community?

- Compliance inspections focus on it
- HW findings almost always the most
- “Little things” make up most of them

# History/Background of RCRA

## Problems with Existing Rule

- Multiple amendments (6+)
  - Outdated
  - Ambiguities
  - Typos

Most of the language in RCRA is 30+ years old!

# Goals of the New Rule

Enter the new HWGIR...

Over **60** changes to Hazardous Waste Generator Program with the following goals:

1. More user-friendly
2. Greater flexibility
3. Fill in gaps
4. Clarity

Overall goal is to foster improved compliance among the regulated community...



# Goals of the New Rule

**What are the new changes and how do they affect ME??**



## **DISCLAIMER:**

- We are not going to cover every change in this presentation
- Focus will be on those most likely to impact Federal facilities

# RCRA-Regulated Community

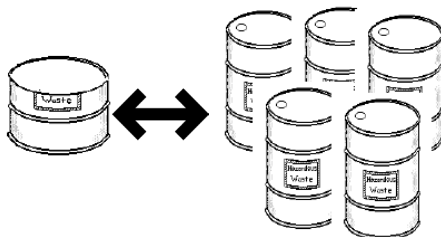
## Volume of Hazardous Waste Generated Each Month...

**Very Small Quantity Generator (VSQG)**



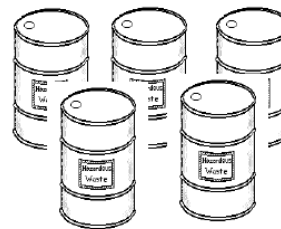
½ Drum or  
27 Gal. Or  
220 lbs. Or  
100 Kg

**Small Quantity Generator (SQG)**



½ to 5 Drums or  
27-275 Gal. Or  
220-2200 lbs. Or  
100-1000 Kg.

**Large Quantity Generator (LQG)**



>5 Drums or  
>275 Gal. or  
>2200 lbs. or  
>1000 Kg.

**TSDf**



**Requires a RCRA Part B Permit**

**TSDf: Treatment, Storage, or Disposal Facility (most regulated)**



# Administrative Changes

## Enforcement

EPA potentially changing how it interprets violations  
(\$262.10(g)(2))

### INDEPENDENT REQUIREMENTS

- HW Determinations
- Recordkeeping
- Manifests
- Generator Category Determination

### CONDITIONS FOR EXEMPTION

- SAA Management
- Open Containers
- Labeling
- Weekly Inspections

- Opens possibility for **substantial** increases in fines for noncompliance
- Punishment may not always “fit the crime”



# Administrative Changes

- CESQG is now VSQG (criteria remain the same)
- Adds weight limit (1 kg) for acute HW SAAs to volume limit (1 qt)
- 3 days means 3 consecutive days
- “Central Accumulation Area” (CAA)

# Administrative Changes

Make the regulations “...more user friendly”

Provision	Existing Citation	New Citation
Generator Category Determination	§ 261.5(c) through (e)	§ 262.13
VSQG Provisions	§ 261.5(a), (b), (f), (g)	§ 262.14
Satellite Accumulation Area Provisions	§ 262.34(c)	§ 262.15
SQG Provisions	§ 262.34(d) through (f)	§ 262.16
LQG Provisions	§ 262.34(a), (b), (g) through (i), (m)	§ 262.17

Source: EPA, 2016

# VSQG Waste Consolidation

- VSQGs have option to send HW to LQG
  - Must be under the control of the same “person” (includes Federal Agency)
- VSQGs may self-transport their waste
- Manifests not required
- Specific requirements to opt in



**VSQGs generate 220  
pounds or less of  
hazardous waste per  
month**

# Episodic Generation

## EPISODIC EVENT:

- A planned or unplanned activity
- Does not normally occur
- Results in excess generation of HW above limits



**Planned** - periodic maintenance, tank cleaning, flammable locker cleanouts



**Unplanned** - production upset conditions, accidental spills, acts of nature

# Episodic Generation

## Allowances

Each VSQG or SQG will be granted:

- One episodic event per calendar year
- An opportunity to petition for a second event if needed
  - If the first event is planned, the petition for a second event must be for an unplanned event (and vice versa)
  - Notification requirements apply

# Relaxation of the 50-foot Rule

**Old Rule:** containers holding ignitable or reactive waste at LQGs must be located at least 15 meters (50 feet) from the facility's property line (no exceptions)

**New Rule:** LQGs may request permission from the “authority having jurisdiction” (AHJ) over the fire code (e.g., fire marshal or fire department) for a site-specific waiver

- AHJ will likely require alternative precautions
- If waiver is granted, LQG must keep copy on file

**If waiver is not granted, the 50-foot rule still applies!**

That covers the **LESS** Stringent aspects of the new rule...

Now we'll focus on the **MORE** stringent aspects of the rule



"BEFORE I CONTINUE, YOU'RE NOT ONE OF THOSE GUYS WHO BLAMES THE MESSENGER FOR BAD NEWS, ARE YOU."



# More Stringent Provisions

## Summary of items to be covered...

1. Hazardous waste determinations (§262.11)
2. SQG re-notification (§262.18(d))
3. Labeling hazardous waste containers (§262.32)
4. Emergency Preparedness & Planning (§262.16, 262.17, and 262 Subpart M)
5. “Quick Reference Guide” for contingency plans (§262.17(a)(6) and 262.262 (b))
6. Biennial reporting (§261.6(c)(2) and 262.41 et seq.)

# Hazardous Waste Determinations

## Is your waste a **hazardous** waste?

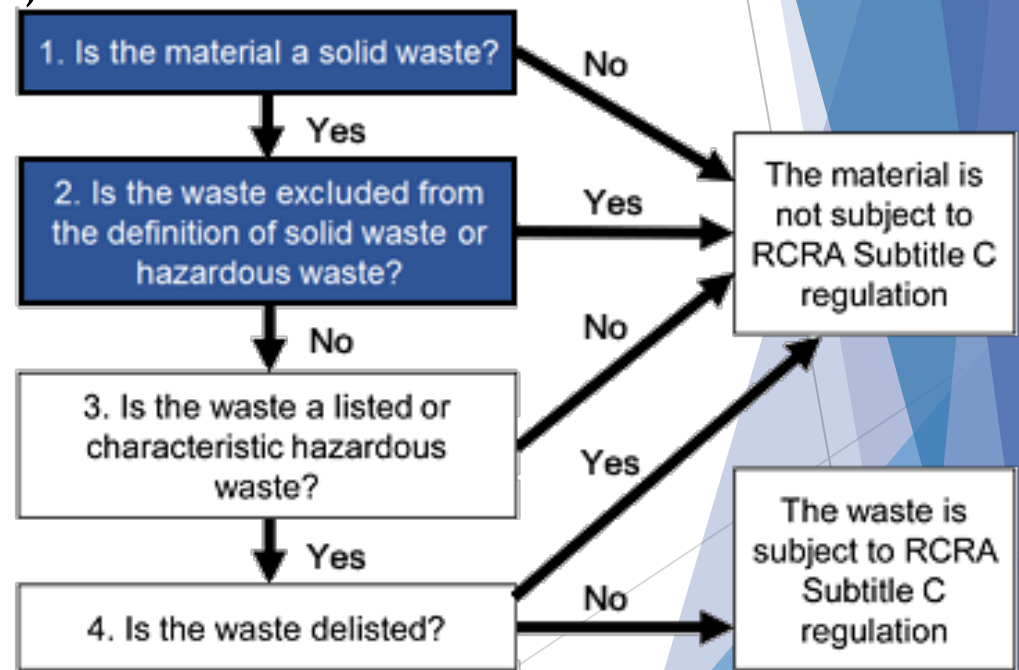
- Is it a listed waste? (F, K, P, U)

- Is it a characteristic waste?

- Ignitable (D001)
- Corrosive (D002)
- Reactive (D003)
- Toxic (D004 - D043)

I Can Remember That!

### The Hazardous Waste Identification Process



# Hazardous Waste Determinations

## Two Methods:

1. Generator Knowledge
2. Laboratory testing



**☒ Don't guess!**

# Hazardous Waste Determinations

**Potentially the most significant aspect of the new rule**

**EPA has observed:**

- Many generators struggle with this crucial first step
- Estimated rates of non-compliance ranging from **20 to 30 percent**
- Potential impact on public health and the environment is significant

EPA has identified proper waste characterization as a compliance **priority**

Source: 81 FR 85732, 28 Nov 2016

# Hazardous Waste Determinations

## What has changed?

New rule emphasizes that waste determinations must be accurate!

There may no longer be an acceptable margin for error

“Honest mistakes”, “good faith errors”, and other unintentional mischaracterizations may no longer be acceptable/forgivable excuses

**So, what goes in to making an accurate determination??**

# Hazardous Waste Determinations

## Generator Knowledge

What is considered “*generator knowledge*”?

Familiarity with the waste based on knowing:

- The origin of the waste (F and K lists)
- The composition of the waste (P and U, toxic)
- The chemical or physical characteristics of the waste (ignitable, corrosive, reactive)
- Other relevant and reliable sources (e.g., previous lab tests, ???)

**WARNING: SDSs are useful but should be used in a supplemental manner only.**



# Hazardous Waste Determinations

## Laboratory Testing

- When generator knowledge is insufficient
- Applicable for characteristic wastes only
- Requires proper sampling techniques
- Alternative test methods also exist but may not be as conclusive



Characteristic	EPA Test Method (SW 846)
Ignitability	1010A, 1020B, 1030
Corrosivity	pH, 1110A
Reactivity	None
Toxicity	1311 (TCLP)

***TCLP: Toxicity Characteristic Leaching Potential***

# Hazardous Waste Determinations

## When to Make a Determination

- Must be made at the point of generation
  - In the SAA, the moment it is considered “waste”
- Before any dilution, mixing, or other alteration occurs
  - Examples: letting a flammable material off-gas VOCs or dry-out while it sits in an open container; neutralizing acids; mixing oil-based paints with water-based paints
- Should be evaluated continually while onsite
  - Nonhazardous waste may become hazardous over time





# SQG Re-Notification

## **SQGs must Notify EPA of their current status**

- Required every 4 years (certain states may require more frequently)
- Electronic reporting will be available
- Compliance start date delayed until 2021

# Labeling Hazardous Waste Containers

## Additional Requirements

All containers of HW (both CAA and SAA) must be labeled to indicate the hazard(s) of the waste

- Flexibility in how to comply with this new provision



Containers must also be marked with RCRA waste code (D001, F002, etc.) prior to shipment

# Emergency Preparedness and Planning

## Emergency Equipment and Materials

Revisions have clarified that EP&P requirements apply wherever HW is being generated:

1. Points of Generation
2. SAAs
3. CAAs

Requires items such as:

- Internal communication or alarm system
- Telephone or a hand-held two-way radio
- Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment
- Water, or foam producing equipment, or automatic sprinklers, or water spray systems
- Aisle space
- Arrangements with local responders

# Quick Reference Guide (QRG) for Contingency Plans

## Applies to Both CPs and ICPs

“Quick Reference Guide” now required as part of the facility’s RCRA Contingency Plan

- New LQGs must prepare QRG when developing their CPs
- Existing LQGs can wait to develop QRG until they are otherwise required to update their CPs
- QRGs must be submitted to local emergency responders with CP



# QRG for Contingency Plans

## Required Elements

- QRGs must hit on 8 key topics
- Must be prepared as a separate document
- Copy kept onsite submitted to local responders & Local Emergency Planning Agency (LEPC)

### QRG Checklist

- Types/names of HW and associated hazards
- Estimated maximum amounts of HW
- HW requiring unique/special treatment
- Map showing where HW is generated, accumulated, or treated at the facility
- Map of facility and surroundings to identify routes of access and evacuation
- Location of water supply
- Identification of on-site notification systems
- Name of emergency coordinator(s) or listed staffed position(s) and full-time (24/7) emergency telephone number(s)

# Biennial Reporting

## Two Notable Changes

- LQGs must include all the hazardous wastes they generated the prior year (not just the months they were an LQG)
- LQGs receiving wastes from VSQGs (consolidation) must include those wastes



# Summary

## ▶ Aspects that are LESS stringent

- VSQG consolidation
- Episodic generation
- Relaxation of the 50-foot rule

## ▶ Aspects that are MORE stringent

- HW determinations
- SQG re-notification
- Hazardous waste labeling
- Emergency preparedness & planning
- Quick Reference Guide for CPs
- Biennial reporting changes

# Summary

## Notable New Recordkeeping and Reporting Requirements

### *New Recordkeeping Requirements*

1. Episodic generation
2. VSQG consolidation
3. Closure
4. 50-foot waiver
5. Arrangements with local authorities

### *New Reporting Requirements*

1. SQG Re-notification (Site ID form)
2. LQGs receiving wastes from VSQGs under control of same company (Site ID form and BR)
3. Episodic generation (Site ID form)
4. Biennial Reporting for Facilities Not Storing (BR)
5. Closure - facility and/or waste accumulation units (Site ID form)
6. Quick Reference Guide (CP add-on)

### For Additional Info:

<https://www.gpo.gov/fdsys/pkg/FR-2016-11-28/pdf/2016-27429.pdf>



# Universal Waste

## What is Universal Waste?

- Special category of hazardous waste
- Regulations are designed to streamline management standards
- Includes types of hazardous waste commonly generated by a wide variety of establishments.
- The streamlined regulations are designed to:
  - Promote recycling
  - Ease the regulatory burden, and
  - Encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to the landfill

# Universal Waste

## Types of Federal Universal Waste

- Batteries (lithium, ni-cad, lead-acid, etc.)
- Pesticides (recalled or part of a collection program)
- Mercury-Containing Equipment (thermometers, switches, etc.)
- Lamps (fluorescent, neon, metal halide, etc.)
- **Aerosol Cans**

## *State-Specific Additions*

- Electronics, antifreeze, ballasts, **solar panels**

# Universal Waste - Aerosol Cans

- Almost any type/content qualifies
- Intact, non-empty
- May be punctured and drained\*, but only if:
  - The empty cans are recycled
  - Proper equipment is used
  - Performed safely
  - Written procedures (SOPs) are written and followed
  - Drained contents must be characterized and managed accordingly

\*Some states may require a permit/approval

# Universal Waste - Aerosol Cans



# Hazardous Waste Pharmaceuticals

## New Rule - 40 CFR 266, Subpart P

New streamlined regulation for hazardous waste **pharmaceuticals** generated at **healthcare facilities** and reverse distributors

- Pharmaceuticals - prescription medications, OTC drugs, dietary supplements, compounded drugs, investigational drugs, personal protective equipment (PPE) contaminated with pharmaceutical waste, clean-up material from pharmaceutical spills
- Healthcare facility - includes but not limited to hospitals, pharmacies, medical or dental clinics, veterinary centers, wholesale distributors, and retailers

# Hazardous Waste Pharmaceuticals

## Key Components of New Rule

- Immediate ban on sewerage hazardous waste pharmaceuticals
- Nicotine replacement therapies (patches, gums, lozenges) are no longer considered hazardous waste (P075) for nicotine (*subject to state adoption*)
- Other unused formulations of nicotine will still be considered P075 when discarded, including
  - E-liquids/e-juices in e-cigarettes, cartridges, or vials
  - Prescription nicotine (e.g., nasal spray, inhaler)
  - Legacy pesticides containing nicotine
  - Nicotine used in research and manufacturing

# Hazardous Waste Pharmaceuticals

## Benefits of the Rule

- Hazardous waste pharmaceuticals do not count towards generator status
- Can use one container for all (co-mingle hazardous and non-hazardous waste into same container) and manage as hazardous waste pharmaceuticals
  - EPA recommends this approach (lower risk)
  - Waste determination is not required
  - One waste code of PHRM on manifests for all

# QUESTIONS?



Feel free to contact me if you have any questions

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# THANK YOU!

