



# Hazardous Waste Generator Improvements Rule

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# Purpose of this workshop

- Spread awareness of the rule
- Describe the rule's provisions and how it may potentially affect generators
- Answer questions about the rule and how it works



# Background

- Effective May 30, 2017
  - Federally and in those states and territories not authorized to implement the RCRA program (i.e. Iowa, Alaska, triple lands and most territories)
  - More than 60 changes made to the Hazardous Waste Generator Program as well as new provisions
- Purpose
  - Reorganizes regulations to be more user friendly (generator regulations are now all in 40 CFR Part 262)
  - Provides greater flexibility for generators (VSQG to LQG consolidation, episodic events)
  - Closes gaps to strengthen environmental protection
  - Addresses ambiguities
- In Arizona
  - Approved by the Governor's Regulatory Review Council on February 5, 2019 (effective immediately)

# Acronyms

- ▶ ADEQ = Arizona Department of Environmental Quality
- ▶ BR = Biennial Report
- ▶ CFR = Code of Federal Regulations
- ▶ ENU = Elementary Neutralization Unit
- ▶ LQG = Large Quantity Generator
- ▶ PDEQ = Pima County Department of Environmental Quality
- ▶ SAA = Satellite Accumulation Area
- ▶ SAC = Satellite Accumulation Container
- ▶ SQG = Small Quantity Generator
- ▶ TSDF = Treatment Storage & Disposal Facility
- ▶ VSQG = Very Small Quantity Generator
- ▶ WWTU = Wastewater Treatment Unit

# Reorganization of Generator Regulations



Provision	Previous Citation	New Citation
Generator Category Determination	§261.5(c)–(e)	§262.13
VSQG Provisions	§261.5(a), (b), (f)–(g)	§262.14
SAA Provisions	§262.34(c)	§262.15
SQG Provisions	§262.34(d)–(f)	§262.16
LQG Provisions	§262.34(a), (b), (g)–(i), (m)	§262.17



# What changes are more stringent?

- SQGs must re-notify ADEQ every four years.
- LQGs must submit a biennial report to ADEQ that identifies all of the hazardous wastes generated in the calendar year, not just the months the facility was an LQG.
- LQGs must prepare Quick Reference Guide for contingency plan and submit to local responders.
- LQGs must notify ADEQ when they plan to close their facilities.

# What changes are more stringent, continued?

- SACs are subject to incompatibility requirements.
- SAAs are subject to preparedness, prevention, and emergency/contingency plan requirements.
- SACs and containers in 90/180-Day Storage Areas must identify the hazard(s) of the contents.
- RCRA waste codes (e.g. D001) must be marked on containers before shipping offsite.

# What changes are less stringent?

- ▶ Streamlined provisions to allow generators that experience an episodic event to keep their normal generator category.
- ▶ Allow LQGs to accept waste from VSQGs under the control of the same person for consolidation at the LQG.
  - ▶ The consolidated waste must then be shipped from the LQG to a RCRA-designated facility under a hazardous waste manifest.
  - ▶ Referred to as “VSQG to LQG Consolidation”.
- ▶ Allow LQGs to get a waiver from the local fire authority if they can't meet the requirement to store ignitable or reactive wastes 50 feet from the property line.



# Waste Determinations 40 CFR §262.11

1. Solid & hazardous waste determinations must be accurate to ensure wastes are properly managed according to applicable RCRA regulations.
2. Determinations must be made at the point of generation, before any dilution, mixing or alteration, and at any time the waste has or may have changed its properties.
3. Language was incorporated that elaborates on how to make a hazardous waste determination for listed and characteristic wastes.

# Waste Determinations, continued

## 40 CFR §262.11

4. If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 for other possible exclusions or restrictions.
5. Recordkeeping and retention requirements for determinations were moved to §262.11(f), with clarifications on what records must be kept; and
6. SQGs and LQGs must identify the applicable RCRA waste codes for the hazardous waste they have generated, BUT the containers only need to be marked with this info. before shipping offsite to a TSDF.

# Making a hazardous waste determination using “generator knowledge”

## ► **Listed** Hazardous Wastes

- Waste origin
- Composition
- Process knowledge
- Feedstock and other reliable/relevant information



# Making a hazardous waste determination using “generator knowledge”

## ► **Characteristic** Hazardous Wastes

- Process knowledge;
- Knowledge of products, by-products, and intermediates produced by the manufacturing process;
- Chemical or physical characterization of wastes;
- Information about the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste;
- Testing that illustrates the properties of the waste; or
- Other reliable/relevant information about the properties of the waste or its constituents.



# How should a generator manage hazardous waste if awaiting test results to make a determination?

- ▶ Any generator managing a potentially hazardous waste should manage it in accordance with the generator regulations until such time that the generator is sure that the waste is not hazardous.



# Determining the quantity of hazardous waste

## §262.13



- ▶ No change to the monthly generation limits for each category of hazardous waste generator.
- ▶ Hazardous waste generated and accumulated in a SAA should be counted and applied toward the calendar month in which it's generated.
- ▶ Generator category still based on the amount of hazardous waste generated each calendar month.
  - ▶ Category may change month to month.
- ▶ Count amount of acute and non-acute hazardous waste generated each calendar month.
  - ▶ Subtract exempt wastes (explained in more detail on later slide).
  - ▶ Use Table 1 in §262.13 to determine category – next slide.

Table 1 to § 262.13  
 Generator Categories Based on  
 Quantity of Waste Generated in a **Calendar Month**

Acute hazardous waste	Non-acute hazardous waste	Residues from a cleanup of acute hazardous waste	Generator category
More than 2.2 lbs. (solid) More than 1 quart (liquid)	Any amount	Any amount	LQG
Any amount	More than 2200 lbs.	Any amount	LQG
Any amount	Any amount	More than 220 lbs.	LQG
Less than 2.2 lbs. (solid) Less than 1 quart (liquid)	More than 220 lbs., but less than 2200 lbs.	Less than 220 lbs.	SQG
Less than 2.2 lbs. (solid) Less than 1 quart (liquid)	Less than 220 lbs.	Less than 220 lbs.	VSQG



## Exempt wastes

- ▶ Exempt from regulation under 40 CFR §261.4(c) through (f), 261.6(a)(3), 261.7(a)(1) or 261.8
- ▶ Managed immediately upon generation in an on-site ENU, WWTU, or totally enclosed treatment facilities (defined 40 CFR §260.10)
- ▶ Recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 40 CFR §262.6
- ▶ Used oil managed under 40 CFR §261.6(a)(4) and 40 CFR Part 279
- ▶ Spent lead-acid batteries managed under 40 CFR Part 266, Subpart G

# Exempt wastes, continued

- Universal waste managed under 40 CFR §261.9 and 40 CFR Part 273
- Unused commercial chemical product generated as a result of a laboratory cleanout at an eligible academic entity
- Waste managed as part of an episodic event (40 CFR Part 262, Subpart L)
- Hazardous wastes need only be counted once (e.g. when it's removed from on-site accumulation)



# Mixing hazardous wastes with solid wastes § 262.13(f)



## ➤ VSQG

- Allowed to mix hazardous wastes with solid wastes and remain subject to the VSQG conditions even if the resulting mixture exceeds the quantity limits of a VSQG... **UNLESS** the mixture exhibits one or more hazardous waste characteristics (ignitability, corrosivity, reactivity, toxicity)
- If the resulting mixture exhibits a characteristic of hazardous waste, this counts toward monthly generation amounts
- If the wastes are mixed with used oil, the mixture is subject to 40 CFR Part 279

# Mixing hazardous wastes with solid wastes

## § 262.13(f)

### ► SQG & LQG

- If hazardous wastes are mixed with solid wastes, these mixtures are subject to:
  - The mixture rule in §§261.3(a)(2)(iv), (b)(2) and (3), and (g)(2)(1);
  - The prohibition of the dilution rule in §268.3(a);
  - The land disposal restriction requirements in §268.4; and
  - The hazardous waste determination requirement in §262.11
- If the resulting mixtures are found to be hazardous waste, they count toward monthly generation amounts



# Marking/Labeling - Hazards

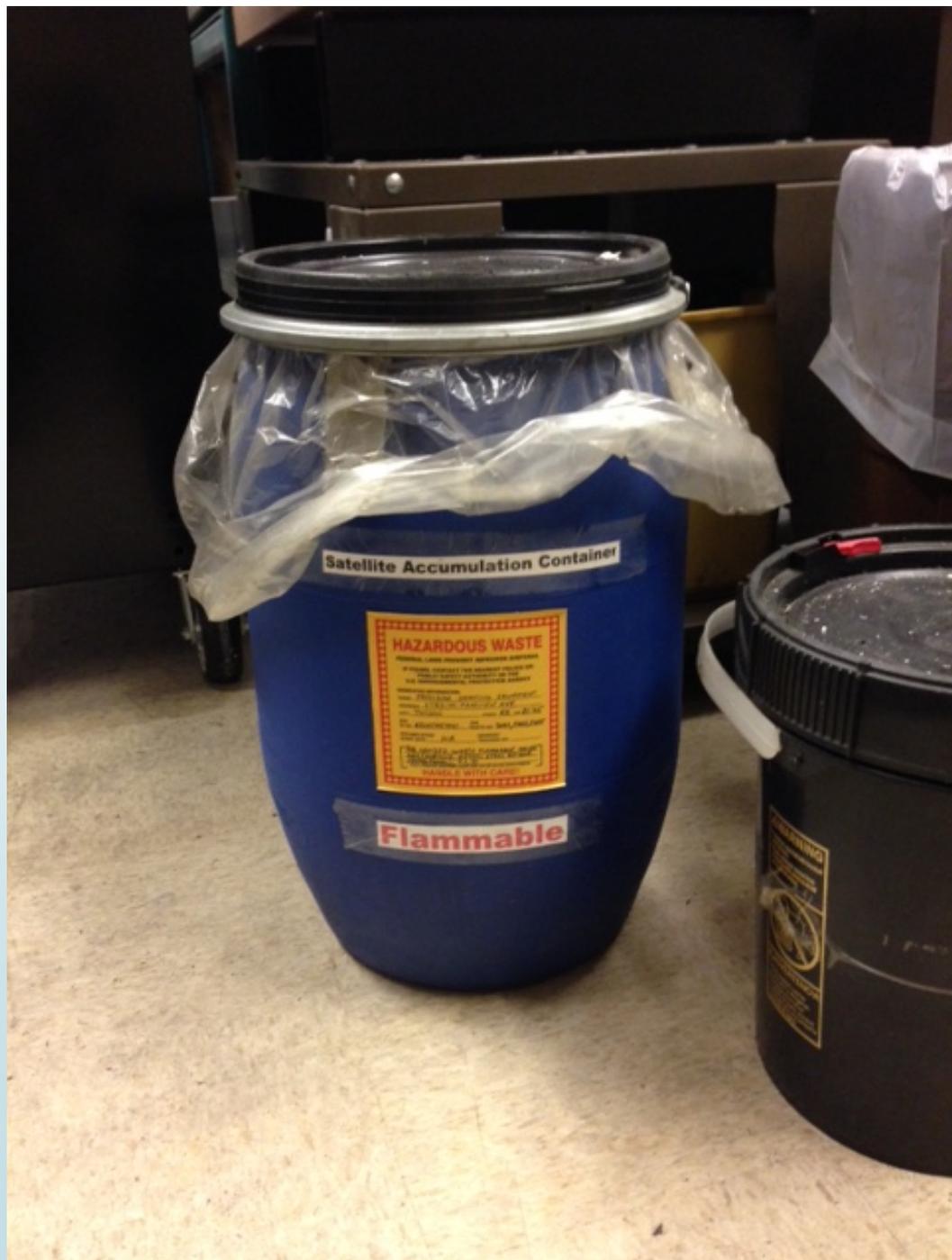


- ▶ Mark hazardous waste containers with an indication of the hazards of the contents. This applies to:
  - ▶ SAAs
  - ▶ Central accumulation areas (e.g. 90 and 180-Day Storage Areas)
  - ▶ Transfer facilities that consolidate hazardous waste from different generators

A decorative graphic on the left side of the slide. It features a dark blue vertical bar on the far left. A black arrow points to the right from the top of this bar. Several thin, curved lines in shades of blue and grey sweep upwards and to the right from the bottom left area, crossing the main text area.

# Examples of how to indicate the hazard(s):

- The words of the applicable hazardous waste characteristic(s) (ignitable, corrosive, reactive, toxic)
- Hazard communication consistent with the Department of Transportation requirements at 49 CFR Part 172 Subpart E (labeling) or Subpart F (placarding)
- A hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR section 1910.1200; or
- A chemical hazard label consistent with the National Fire Protection Association code 704





CALIFORNIA  
HAZARDOUS  
WASTE

POISON  
6

FLAMMABLE LIQUID  
3

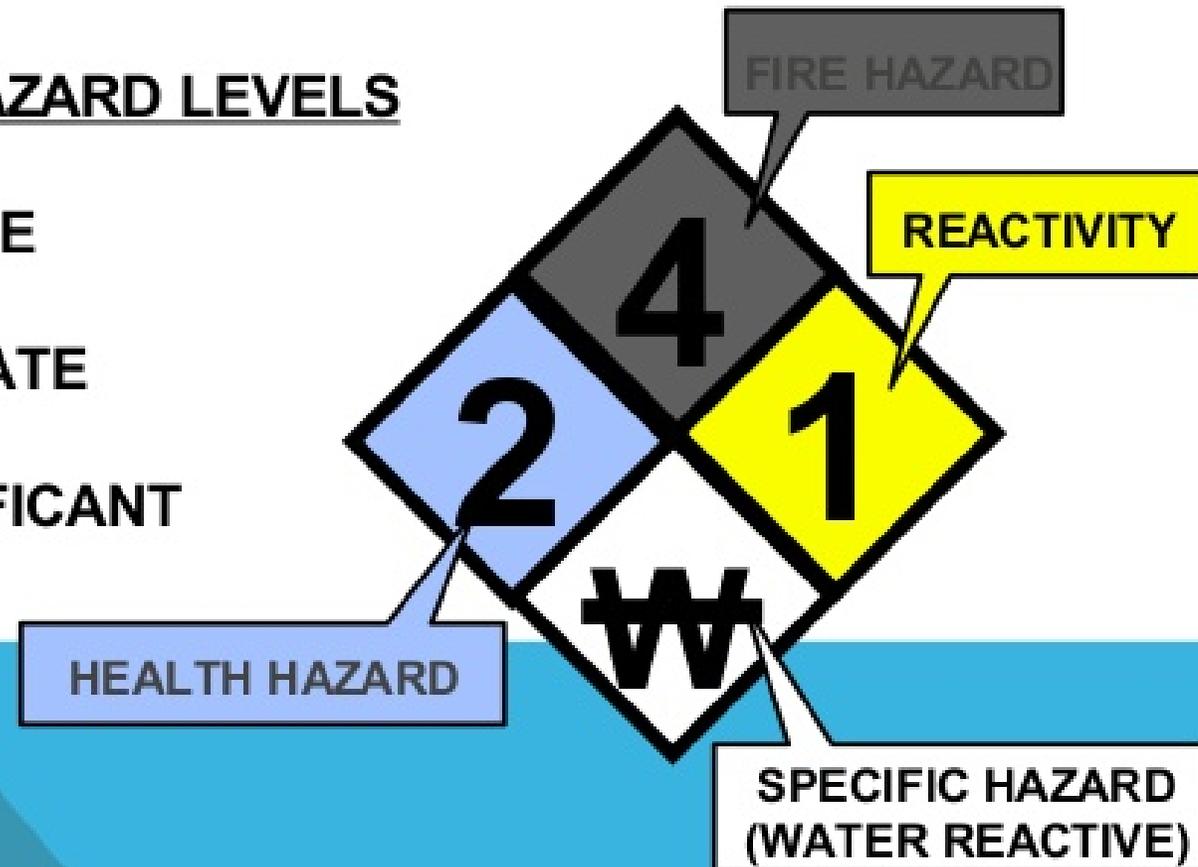
## GHS - Hazard Pictograms and Related Hazard Classes

		
<b>Expanding Bomb</b> <ul style="list-style-type: none"> <li>• Explosives</li> <li>• Self-reactives</li> <li>• Organic Peroxides</li> </ul>	<b>Corrosion</b> <ul style="list-style-type: none"> <li>• Skin corrosion/burns</li> <li>• Eye damage</li> <li>• Corrosive to metals</li> </ul>	<b>Flame Over Circle</b> <ul style="list-style-type: none"> <li>• Oxidizing gases</li> <li>• Oxidizing liquids</li> <li>• Oxidizing solids</li> </ul>
		
<b>Gas Cylinder</b> <ul style="list-style-type: none"> <li>• Gases under pressure</li> </ul>	<b>Environment</b> <ul style="list-style-type: none"> <li>• Aquatic toxicity</li> </ul>	<b>Skull &amp; Crossbones</b> <ul style="list-style-type: none"> <li>• Acute toxicity (fatal or toxic)</li> </ul>
		
<b>Exclamation Mark</b> <ul style="list-style-type: none"> <li>• Irritant (eye &amp; skin)</li> <li>• Skin sensitizer</li> <li>• Acute toxicity</li> <li>• Narcotic effects</li> <li>• Respiratory tract irritant</li> <li>• Hazardous to ozone layer (non-mandatory)</li> </ul>	<b>Health Hazard</b> <ul style="list-style-type: none"> <li>• Carcinogen</li> <li>• Mutagenicity</li> <li>• Reproductive toxicity</li> <li>• Respiratory sensitizer</li> <li>• Target organ toxicity</li> <li>• Aspiration toxicity</li> </ul>	<b>Flame</b> <ul style="list-style-type: none"> <li>• Flammables</li> <li>• Pyrophorics</li> <li>• Self-heating</li> <li>• Emits flammable gas</li> <li>• Self-reactives</li> <li>• Organic peroxides</li> </ul>

# NFPA LABEL

## FIVE NFPA HAZARD LEVELS

- ☑ - 4 EXTREME
- ☑ - 3 HIGH
- ☑ - 2 MODERATE
- ☑ - 1 SLIGHT
- ☑ - 0 INSIGNIFICANT



# Marking/Labeling - Waste Codes

## §262.32

- ▶ RCRA waste codes must be placed on containers before shipping offsite, but do not need to be applied before that time
- ▶ An electronic system (bar coding) is acceptable as long as the waste code(s) are tied to the specific container

**HAZARDOUS WASTE**  
FEDERAL LAW PROHIBITS IMPROPER DISPOSAL.

IF FOUND CONTACT THE NEAREST POLICE  
PUBLIC SAFETY AUTHORITY OR THE  
U.S. ENVIRONMENTAL PROTECTION AGENCY.

GENERATOR INFORMATION:  
NAME BASF CORPORATION  
ADDRESS 1609 BIDDLE AVENUE  
CITY WYANDOTTE STATE MI ZIP 48192  
EPA ID NO. MID064197742 EPA WASTE NO. U221  
ACCUMULATION START DATE \_\_\_\_\_ MANIFEST DOCUMENT NO. \_\_\_\_\_

**RQ Waste 2, 4 -Toluenediamine, 6.1**  
**UN 1709, PG III, ERG 151**

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

**HANDLE WITH CARE!**

W009 FORM 12458

# VSQG to LQG Consolidation

## §262.17(f) for LQGs

## §262.14(a)(5)(vii) for VSQGs

- Applies to hazardous waste generated at one or more VSQGs and sent for consolidation to a single LQG
- Both the LQG and VSQG must be under the “control” of the same “person”
- VSQG must mark containers with the words “Hazardous Waste” and an indication of the hazards of the contents
- VSQG does not have to use a manifest or a hazardous waste transporter when shipping to LQG for consolidation (DOT requirements still apply)

- LQGs must notify ADEQ thirty (30) days before receiving the waste from the VSQG

*NOTE: EPA revised the 8700-12 form to include a section for LQG notification of VSQG hazardous waste consolidation.*

- LQGs must maintain records of shipments received from VSQG for three (3) years
- LQG reports waste in Biennial Report

# Episodic Generation

## §262.232

- ▶ Allows generation at higher status while retaining requirements of lower status:
  - ▶ VSQG → SQG
  - ▶ VSQG → LQG
  - ▶ SQG → LQG
- ▶ Notify ADEQ at least 30 days before planned episodic event.
- ▶ Notify ADEQ within 72 hours after an unplanned event.
- ▶ Conclude the episodic event within 60 days, including shipping the episodic waste off-site.
- ▶ A generator can conduct one (1) planned or unplanned episodic event in a **calendar** year (can petition for a 2<sup>nd</sup> event if necessary).
- ▶ All wastes must ship to the TSDF using a Hazardous Waste Manifest and a hazardous waste transporter.
- ▶ **Increased production of hazardous waste due to an increased rate of production is not an episodic event.**

# Satellite Accumulation Areas

## §262.15

- ▶ Accumulation limits
  - ▶ 55 gallons non-acute hazardous waste
  - ▶ One quart liquid acute hazardous waste
  - ▶ 2.2 lbs. solid acute hazardous waste
- ▶ Containers must be closed at all times, except when:
  - ▶ Adding, removing, consolidating waste (no change)
  - ▶ **Temporarily** venting for the proper operation of equipment or to prevent dangerous situations (e.g. build-up of extreme pressure)
- ▶ SAAs need to meet Preparedness and Prevention requirements in §262.16(b)(8) and emergency procedures in §262.16(b)(9) for SQGs and 40 CFR Part 262, Subpart M for LQGs



# Satellite Accumulation Areas, continued §262.15



- ▶ Hazardous wastes cannot be mixed or placed in a container with incompatible wastes
- ▶ “Three days” means three consecutive days
- ▶ Containers must be marked with the words “Hazardous Waste”
- ▶ Containers must be marked with indication of the hazard
- ▶ Rescinded previous memo allowing reactive wastes to be stored away from the point of generation (outside of building)

# SQG Preparedness and Prevention §262.16(b)(8)

- Internal communications or alarm system for facility personnel
- A device capable of summoning emergency assistance
- Portable fire extinguishers, fire control equipment, spill control equipment, decontamination equipment
- Water at adequate volume and pressure
- Aisle space
- Arrangements with local authorities
- Weekly inspections (listed under §262.16(b)(2)(iv), not in P & P section)



# SQG Emergency Procedures

## §262.16(b)(9)



- ▶ Emergency coordinator must be onsite or on-call to coordinate emergency response measures
- ▶ Emergency information posted
  - ▶ Name and phone number of emergency coordinator,
  - ▶ Location of fire extinguishers, spill control, equipment, fire alarm (if present)
  - ▶ Telephone number of the fire department
- ▶ Personnel training (familiar with waste handling & emergency procedures)

# LQG Preparedness and Prevention

## 40 CFR Part 262, Subpart M

- Internal communications or alarm system for facility personnel
- A device capable of summoning emergency assistance
- Portable fire extinguishers, fire control equipment, spill control equipment, decontamination equipment
- Water at adequate volume and pressure
- Aisle space
- Weekly inspections



# LQG Preparedness and Prevention, continued

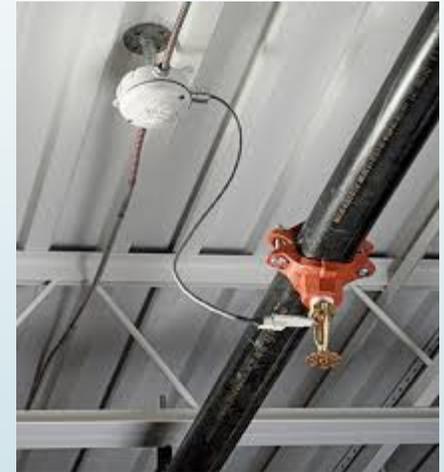
## 40 CFR Part 262, Subpart M

- ▶ Emergency coordinator must be onsite or on-call to coordinate emergency response measures
- ▶ Follow emergency procedures in accordance with §262.265
- ▶ Arrangements with local authorities
- ▶ Contingency Plan
  - ▶ Maintained onsite
  - ▶ Submit copy to local emergency responders
  - ▶ SAAs included
  - ▶ Quick reference guide



# Contents of the Contingency Plan Quick Reference Guide

- ▶ Types and names of hazardous wastes on site and their hazard in layman's terms (e.g., toxic paint wastes, spent ignitable solvents);
- ▶ Estimated maximum amount of each hazardous waste on site at any one time;
- ▶ Hazardous wastes requiring unique/special treatment
- ▶ Map showing where hazardous wastes are generated, accumulated, treated
- ▶ Map of facility and surroundings to identify routes of access and evacuation
- ▶ Location of the water supply;
- ▶ Information about any on-site notification systems to communicate with people at the facility; and
- ▶ Name of an emergency coordinator(s) and 24/7 emergency phone numbers.



# SQG & LQG Emergency Preparedness & Planning - Clarifications and Areas of Flexibility



- Generators are not required to make arrangements with local authorities, and need only attempt to make arrangements.
- Scope of contingency planning and emergency procedures apply only to areas where hazardous wastes are accumulated – including points of generation and satellite accumulation areas.
- LQGs have flexibility to eliminate unnecessary employee personnel information in the contingency plan.
- SQGs and LQGs determine the most appropriate locations for emergency equipment.
- SQGs have the option to use contractors to address releases (containment/cleanup).

## LQG requirements for closing 90-Day Storage Areas §262.17(a)(8)



- ▶ A LQG may choose one of the following two options to ensure that upon closure this accumulation area will be identified as a former accumulation area for hazardous waste:
  - ▶ Place a notice in the operating record within 30 days after closing the waste accumulation unit that identifies the unit's location within the facility.
  - ▶ Notify ADEQ no later than 90 days after closing the unit. The generator should have met the closure performance standards in §262.17(a)(8)(iii) on or before the date they submit the 90-day notification.



# LQG Closure Performance Standards

## §262.17(a)(8)(iii)

- ▶ Requirements that need to be met at closure:
  - ▶ Minimize the need for further maintenance,
  - ▶ Remove or decontaminate all equipment, structures and soil
  - ▶ Hazardous waste generated during closure must be managed according to regulations
- ▶ If contaminated soils and wastes cannot be practicably removed or decontaminated, then landfill closure requirements apply
- ▶ Notify ADEQ 30 days prior to closing the facility
- ▶ Notify ADEQ within 90 days after that they have complied with the closure performance standards
- ▶ Closure requirements do not apply to SAAs

# Waiver to 50-Foot Requirement §262.17(a)(1)(vi)

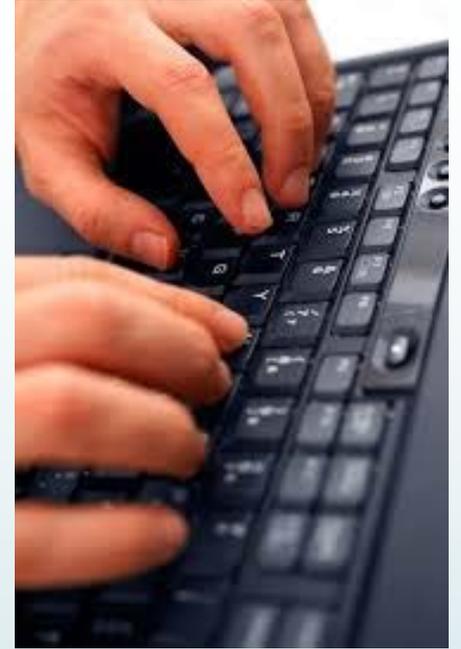
- ▶ Regulations require that ignitable or reactive wastes be located at least 50 feet from the property line.
- ▶ This can sometimes be impossible, especially in urban areas where properties are less than 100 feet wide.
- ▶ Final rule allows LQGs to apply for a waiver from the fire marshal if the fire marshal believes that the precautions taken by the facility make the waiver appropriate and safe.



# Biennial Report

## §262.41

- Clarifications are consistent with previous BR guidance.
- Regulations do not list specific elements to be reported, but instead refer generators to the instructions on the form.
- LQGs report all hazardous waste generated and managed onsite in reporting year.
- LQGs must report hazardous wastes generated throughout the year, even for months when they are a SQG.
- Recycling facilities that do not have a RCRA storage permit must now report hazardous wastes being recycled.



# SQG Re-notification

## §262.18(d)

- ▶ SQGs must re-notify ADEQ every 4 years
- ▶ Re-notify by September 1
- ▶ Electronic reporting
- ▶ Compliance date is delayed until 2021





THANK YOU  
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