Training to Colleges and Universities on the Hazardous Waste Generator Improvements Rule

US EPA
Office of Resource Conservation and Recovery
January 31, 2017

Module 1: Goals and Background of the Generator Improvements Rule

Contents of Module 1

- Purpose of this Training
- Background
- History of the Rule
- Generator Universe
- Goals of the Final Rule
- Reorganization of the Generator Regulations

Purpose of this Training

- Spread awareness of this new rule
- Describe and explain the rule's provisions and how this rule may potentially affect generators
- Obtain feedback and answer questions from participants about the rule and how it might work
- Learn what types training materials would be most useful for EPA to develop to assist in implementing this rule

Background

What is the Resource Conservation and Recovery Act (RCRA)?

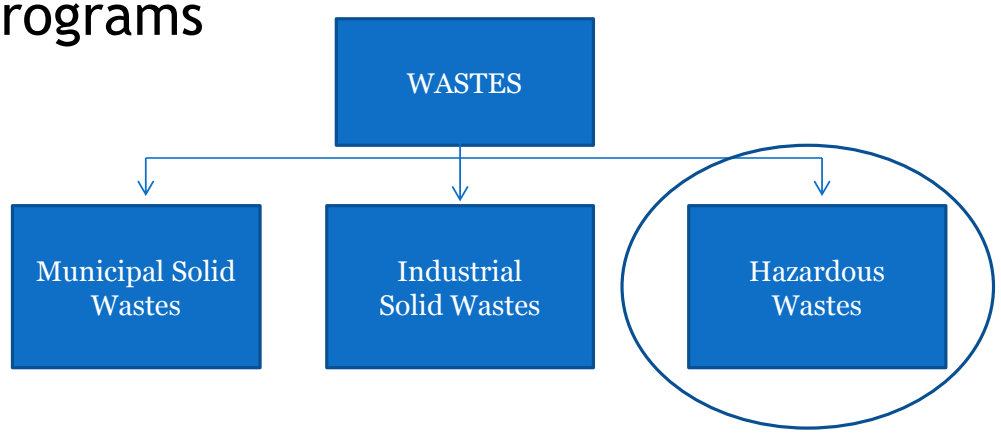
- RCRA was enacted by Congress in 1976 and regulates the management of solid waste (e.g., garbage), hazardous waste, and underground storage tanks holding petroleum or certain other chemicals.

RCRA Program Goals

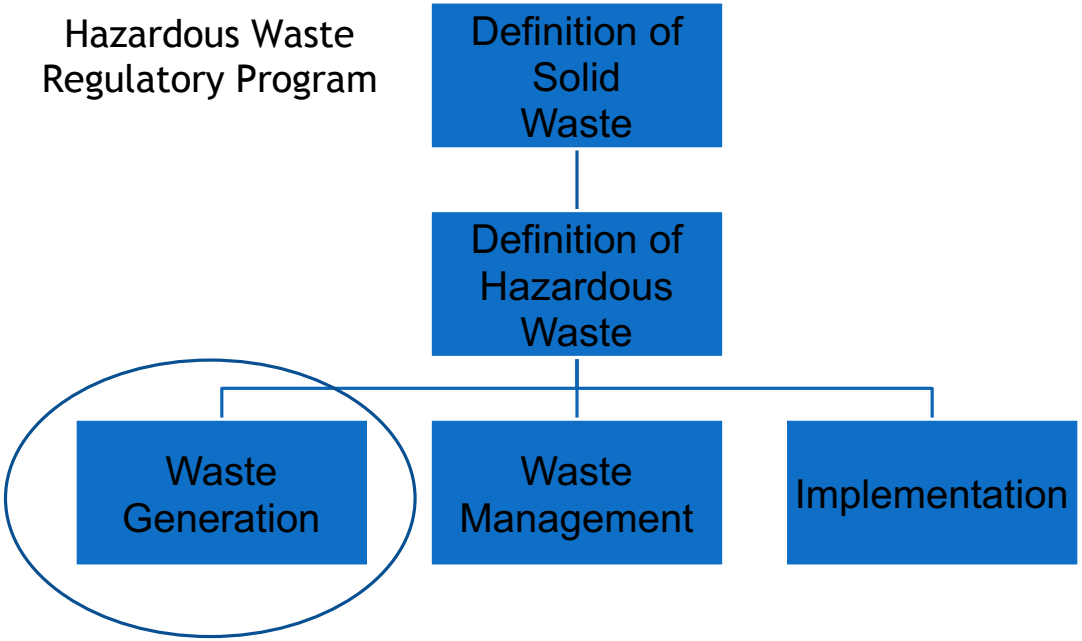
- To protect human health and the environment from the potential hazards of waste disposal.
- To conserve energy and natural resources.
- To reduce the amount of waste generated.
  - Statutory Authority for Generator Improvements Rule: Sections 2002, 3001, 3002, 3003, 3004, 3007, 3010 of the Solid Waste Disposal Act of 1965, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6921, 6922, 6923, 6924.

Background

Waste Programs



Background


Hazardous Waste Regulatory Program
Definition of Solid Waste
Definition of Hazardous Waste
Waste Generation
Waste Management
Implementation

Background

Waste Generation

- Different levels of regulation for facilities that generate different volumes of hazardous waste on a monthly basis
  - Three categories of Generators:
    - Very small quantity generators (VSQGs) – renamed in this rule (previously called "conditionally exempt small quantity generators (CESQGs)")
    - Small quantity generators (SQGs)
    - Large quantity generators (LQGs)

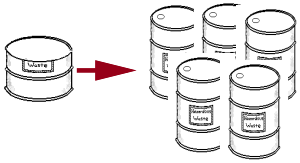
Background

To determine your generator category, count all waste generated in a calendar month:

Very Small Quantity Generator (VSQG)

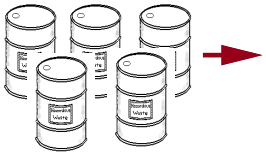
½ Drum or
27 Gal. Or
220 lbs. Or
100 Kg

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.

Key: 55 Gallon Drum = 440 lbs. = 200 Kg.

History of the Rule

- Most of the generator rules were promulgated in the 1980s and are over thirty years old
- In 2004, ORCR conducted an evaluation of the generator program to improve program effectiveness, reduce compliance costs, and foster an improved relationship with states and the regulated community, published an ANPRM (April 22, 2004, 69 FR 21800) and held four public meetings soliciting comment on the effectiveness of the generator program
  - Comments included: simplify the regulations, eliminate cross-referencing, codify guidance, provide flexibility for episodic generators, require re-notification for SQGs, provide one-pager basic information for contingency planning, clarify ambiguities, clarify concepts in satellite accumulation among others

History of the Rule

- After 2004, ORCR took a number of non-regulatory actions to respond to public comments and to improve the generator program:
  - Improved user-friendliness of generator website
  - Developed online guide to the "Hazardous Waste Generator Regulations"
  - Released "Closed Container" guidance
  - Issued memo for turnover of hazardous waste in tanks
  - Issued a Technical Corrections (direct final) rule
- We also engaged in further program evaluation
  - 2012 Hazardous Waste Determination Program Evaluation
  - 2014 Retail NODA OMB Retrospective Review
- However, EPA determined that many of the existing issues with the generator regulations could only be resolved through rulemaking.
- The September 25, 2015, proposed rule grew out of all of these evaluations and presented more than 60 proposed changes to the generator regulations, plus technical corrections, for public comment.

History of the Rule

- Over 230 public comments were received on the Generator Improvements Proposed Rule
- The commenters included:
  - 25 states
  - 10 local governments
  - More than 50 from academic institutions
  - About a dozen from the energy sector/utilities
  - More than 25 from industry and related trade associations
  - 10 from the waste management industry
- Comments covered all aspects of the rule, particularly waste determinations and marking and labeling; independent requirements and conditions for exclusion; VSQG consolidation; and episodic generation

Generator Universe

Generator Category	Number of Facilities	Total Hazardous Waste Generated (tons)	Percent of Total Hazardous Waste Generated
VSQGs	353,400–591,800	46,000–148,000	<1%
SQGs	49,900–64,300	66,000–141,000	<1%
LQGs	20,800	35.2 million	99%
Total	424,100–676,900	35.3–35.4 million	**100%**

* Numbers of VSQGs and SQGs are estimates based on Biennial Report (BR) and limited state data. LQG number is derived from 2013 BR.

Goals of the Final Rule

The 2016 HW Generator Improvements Final Rule —

- Over 60 changes to Hazardous Waste Generator Program that:
  - Reorganizes the regulations to make them more user-friendly and thus enables improved compliance by the regulated community
  - Provides greater flexibility for hazardous waste generators to manage waste in a cost-effective manner through episodic generation and VSQG-LQG consolidation provisions
  - Strengthens environmental protection by addressing identified gaps in the regulations
  - Clarifies certain components of the hazardous waste generator program to address ambiguities and foster improved compliance

Reorganization of Generator Regulations

Provision	Existing Citation	Proposed Citation
Generator Category Determination	§ 261.5(c)–(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)–(f)	§ 262.16
LQG Provisions	§ 262.34(a), (b), (g)–(i), (m)	§ 262.17

As part of this reorganization, the Agency made conforming changes to citations that reference § 261.5 and § 262.34

Note: See Crosswalk Handout for more details about reorganization.

Definitions of Terms

§ 260.10

- Acute hazardous waste/ Non-acute hazardous waste
- Central accumulation area
- Large quantity Generator/ Small quantity generator/ Very small quantity generator

§ 262.1

- Conditions for exemption/ Independent requirement

Module 2: Independent Requirements for All Generators

Contents of Module 2

- Hazardous Waste Determinations
- Counting and HW Generator Categories
- Mixtures
- Marking and Labeling

Hazardous Waste Determinations (Where It All Begins (Sort of)!)

Outline of Presentation

- Summary - What changes and why?
- Putting things in context
- Discussion of 40 CFR 262.11 Hazardous Waste Determination provisions
  - Is the material a solid waste?
  - Is the solid waste excluded?
  - Determination must be made at point of generation
  - Have you generated a listed waste?
    - Use of knowledge
  - Have you generated a characteristically hazardous waste
    - Use of knowledge and/or testing
  - Documenting the waste determination
  - Identifying RCRA waste codes
  - Determinations must be accurate!
  - The Bottom Line!

Hazardous Waste Determinations: What Changes and Why?

What changes?

- Clarifies and emphasizes that waste determinations **must be accurate**!
- Confirms when a generator's hazardous waste determination must be made
- Elaborates on how to determine if a solid waste is either a listed and/or characteristic hazardous waste
- Identifies what waste determination records must be kept
- Requires SQGs and LQGs to identify and mark RCRA waste codes on containers prior to sending hazardous waste off-site per § 262.32

Why did we make these changes?

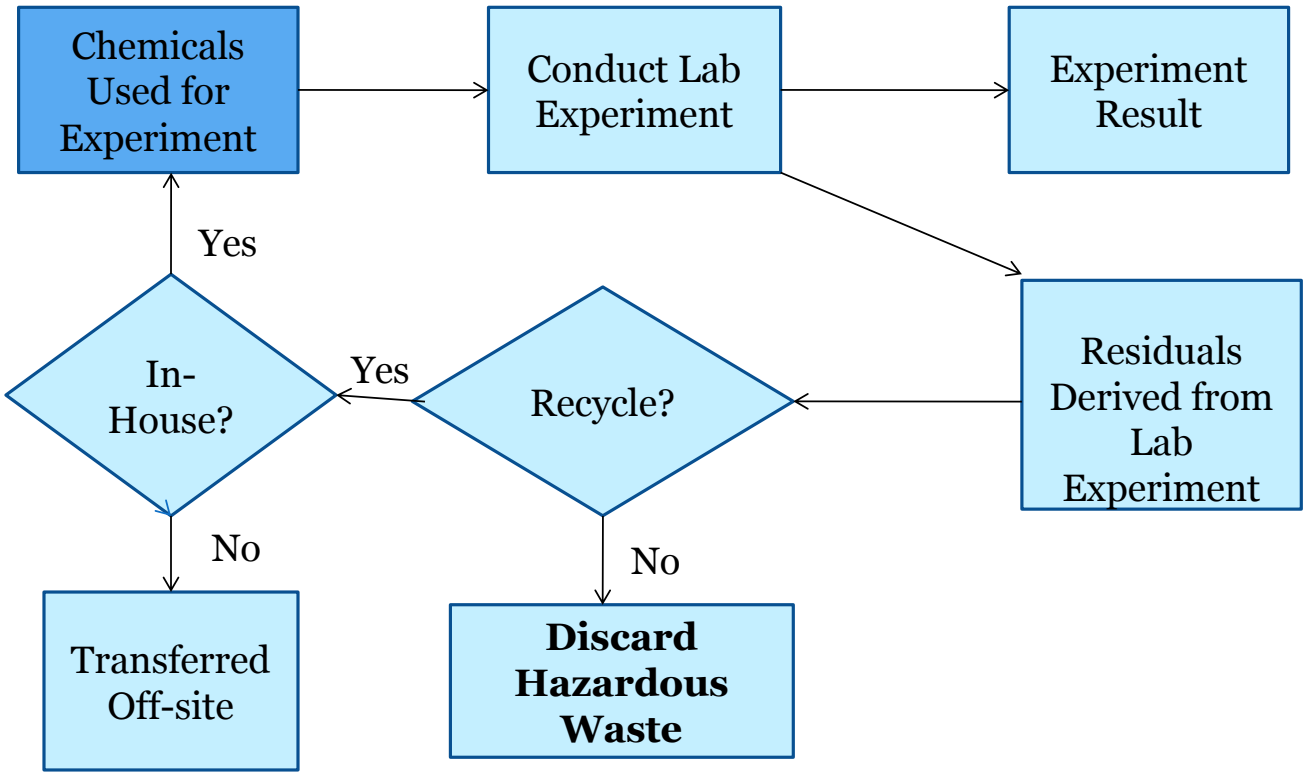
- To improve generator compliance and therefore program success!
- From different Agency analyses, generators consistently fail to make an accurate hazardous waste determination, leading to the mismanagement of hazardous waste
  - Non-compliance rates range from 10 to 30 percent
  - Reasons vary from not understanding RCRA to not even being aware of RCRA
- Making an accurate hazardous waste determination reduces Domino Effect
  - Hazardous waste most likely will be managed safely from “cradle to grave”

Where It All Begins!

Statutory Definition of Solid Waste - 42 U.S.C. § 6903(27)

"The term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include…"

Putting Things in Context (Laboratory Setting)



Making a 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.

§ 262.11(a) Point of Generation

The hazardous waste determination for each solid waste must be made at the point of waste generation,.....

RCRA Statute is clear:
The term "hazardous waste generation" means the act or process of producing hazardous waste. See Solid Waste Disposal Act, Section 1004.

Why at the point of waste generation?

- To Ensure:
  - Proper waste identification
  - Proper handling and management from "cradle to grave"
  - Compliance with LDRs

§ 262.11(a) Point of Generation

- 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, ...

Mixing and Alteration of the Waste

- Hazardous wastes generated by a generator may be mixed with solid waste. (See §262.13 (f))
- Is mixing a form of dilution?
  - Yes, **unless** the solid waste provides a useful and effective contribution to decharacterizing the hazardous waste (i.e., possesses a unique property to remove the hazardous characteristic from the hazardous waste instead of merely diluting it). (See 81 FR 85756)
- Alteration of waste: May change waste properties and subsequent handling
- Example: Letting volatile organic solvents volatilize from an uncovered container

Dilution

§268.3 Dilution prohibited as a substitute for treatment.

- (a) Except as provided in paragraph (b) of this section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with subpart D of this part, to circumvent the effective date of a prohibition in subpart C of this part, to otherwise avoid a prohibition in subpart C of this part, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

§ 262.11(a) Point of Generation

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.**

Why inclusion of this statement?

At any time in the course of its management…

- Generators need to understand the chemistry and chemical properties of their waste.
- A SW determined to be non-hazardous at the point of generation can in some cases become hazardous over time while being managed on-site through exposure to the environment (reactive wastes), settling (bi-phasic solvent waste), etc.
- Note: Opposite also true; hazardous wastes can become non-hazardous so long as not diluted or non-LDR compliance treatment
- **Does this mean you need to monitor your waste 24/7?**

Point of generation (continued)

- In rare cases, identifying the point of generation may not always be straightforward
  - Example: Utility boiler cleanouts
- Generators may also take conservative approach and manage non-HW as HW if they so choose
  - Wait until test results come back
  - Play it safe

How should a hazardous waste determination be made?

- Generators should **use a systematic approach to make hazardous waste determinations**:
  - **First**, identify all feedstocks and chemicals used to produce product or service (**or conduct experiments**)
  - **Second**, identify products, **and secondary materials derived from production**
  - **Third**, identify points of generation for each of these secondary materials
    - Follow the "Yellow Brick Road" for these secondary materials
  - **Fourth**, identify which secondary materials are solid wastes
  - **Fifth**, make a hazardous waste determination for each solid waste

    - Has the facility identified the solid waste as a hazardous waste correctly?

- Generators can use different approaches (e.g., checklists, etc.) in making waste determinations, but the outcome should always be the same.

§262.11(b) A person must determine whether the solid waste is excluded from regulation under 40 CFR 261.4.

- 40 CFR 261.4 has three sections that exclude or exempt certain secondary materials from being either a SW or HW
  - 40 CFR 261.4(a) identifies secondary materials that are not SW
  - 40 CFR 261.4(b) identifies SW but are not HW
  - 40 CFR 261.4(c) identifies HW which are exempted from certain regulations until the HW exits the unit(s) in which it was generated

§262.11(c) Have You Generated a Listed Hazardous Waste?

- If the waste is not excluded under 40 CFR 261.4, the person **must then use knowledge** of the waste to determine if the waste meets any of the listing descriptions under subpart D of 40 CFR part 261.
- **Acceptable generator knowledge** that may be used in making an accurate determination as to whether the waste is listed may include:
  - waste origin
  - composition
  - the process producing the waste
  - feedstock, and
  - other reliable and relevant information; **e.g., the regulatory language of the listing, the regulatory intent of the original listing** (as evidenced by Federal Register notices, background documents, etc.)
- If the waste is listed, the person may file a delisting petition under 40 CFR 260.20 and 260.22 to demonstrate to the Administrator that the waste from this particular site or operation is not a hazardous waste.

Four types of Listed Hazardous Waste

- F – non-specific industrial sources (§ 261.31)
- K – specific industrial sources (§ 261.32)
- P and **U** – discarded commercial chemical products, off-spec species, container residues, spill residues (§ 261.33)

Examples of F-Listed Wastes from Non-Specific Source Wastes at 40 CFR 261.31

- **Spent solvent wastes (F001-F005)**
- Wastes from electroplating and other metal finishing operations (F006-F008, F012, F019)
- Dioxin-bearing wastes (F020 - F023 and F026 - F028)
- Wastes from the production of certain chlorinated aliphatic hydrocarbons (F024 and F025)
- Wastes from wood preserving (F032, F034, and F035)
- Petroleum refinery wastewater treatment sludges (F037 and F038)
- Multisource leachate (F039)

Examples of K-Listed Wastes from Specific Sources at 40 CFR 261.32

(Identified by Industry)

- Wood preserving (K001)
- Production of inorganic pigments (K002 - K008)
- Production of inorganic chemicals (K071, K073, K106, and K176 - K178)
- Production of pesticides (K031 - K043, K097 - K099, K123 - K126, and K131 -K132)
- Petroleum refining (K048 - K052, and K169 - K172)
- Production of iron and steel (K061 and K062)
- Coking (K060, K141 - K145, and K147 - K148)
- Primary aluminum production (K088)
- Secondary lead processing (K069 and K100)

P and U-listed Waste

- "**P**" waste codes= Acutely HWs
- "**U**" waste codes= Toxic if not otherwise identified by another hazardous waste characteristic

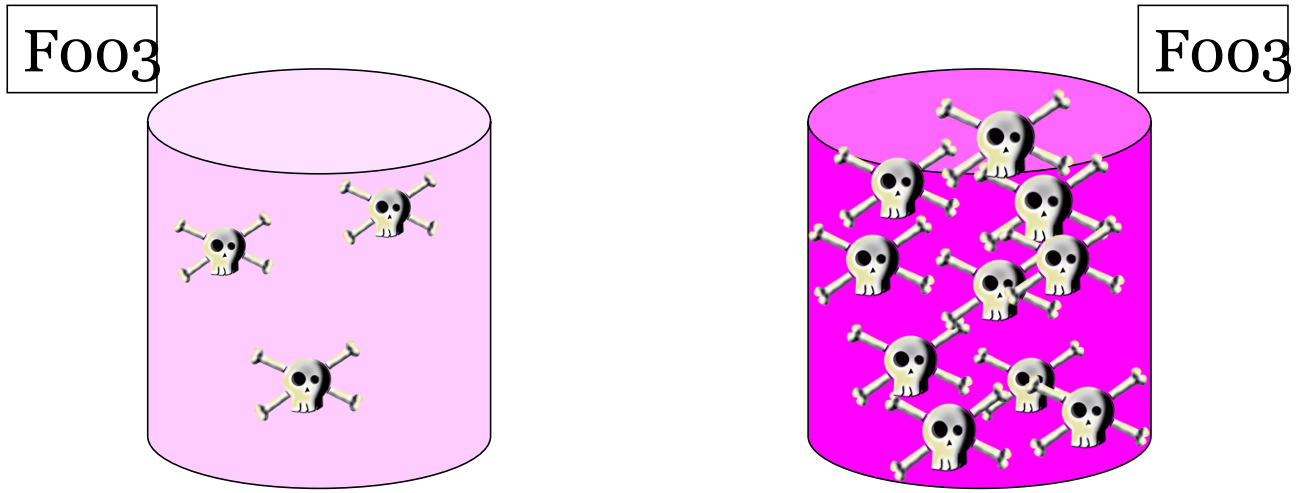
P- and U-listed Waste

- The P and U listings apply to
  - Commercial chemical product (CCP) or manufacturing chemical intermediate being discarded
  - Off-specification CCPs being discarded
  - Any residue remaining in a container or in a inner liner removed from a container that held a CCP
  - Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any CCP or manufacturing chemical intermediate

Note: P and U-listed wastes do not apply to chemical production wastes and spent solvents

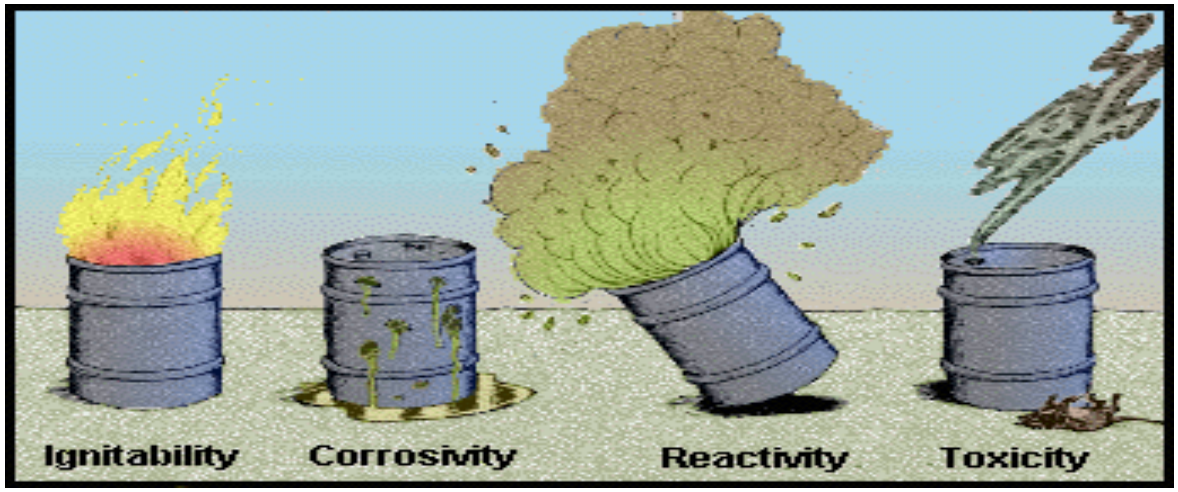
Remember: With LISTED wastes…

The concentration of the bad stuff in the waste doesn't matter



§262.11(d): Have you generated a characteristically hazardous waste?

- There are four hazardous waste characteristics



Characteristic Wastes

- Exhibit a hazardous waste property
  - **I**gnitable– **D001**
  - **C**orrosive – **D002**
  - **R**eactive – **D003**
  - **T**oxic – **D004-D043**
- **I C**an **R**emember **T**hat!

§262.11(d): Have you generated a characteristically hazardous waste?

- The person then must also determine whether the waste exhibits one or more hazardous characteristics as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section or a combination of both.
- (1) The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste.

Have you generated a characteristically hazardous waste (cont.)?

- Acceptable knowledge may include:
  - process knowledge (e.g., information about chemical feedstocks and other inputs to the production process);
  - knowledge of products, by-products, and intermediates produced by the manufacturing process;
  - chemical or physical characterization of wastes;
  - information on 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 and relevant information about the properties of the waste or its constituents.
  - A test other than a test method set forth in subpart C of 40 CFR part 261, or an equivalent test method approved by the Administrator under 40 CFR 260.21, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste.

Have you generated a characteristically hazardous waste (cont.)?

(2) **When available knowledge is inadequate to make an accurate determination, the person must test the waste** according to the applicable methods set forth in subpart C of 40 CFR part 261 or according to an equivalent method approved by the Administrator under 40 CFR 260.21 and in accordance with the following:

(i) Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR 260.10.

(ii) Where a test method is specified in subpart C of 40 CFR part 261, the results of the regulatory test, when properly performed, are definitive for determining the regulatory status of the waste.

Testing Must be Based on a Representative Sample of the Waste

- Regardless of what testing being performed, it must be based on a **representative sample** of the waste
- A representative sample is a sample of a universe or whole expected to exhibit the average properties of the universe or whole (see 40 CFR 260.10).
- However, this does not imply that the results of different samples should be averaged

What Counts as "Knowledge" for Making a Determination?

- The results of non-regulatory tests may also provide relevant information:
  - Total concentration in the waste may show the waste is not TC hazardous
  - Tests that evaluate properties similar to the characteristic may be relevant, even if they do not define the waste as hazardous by themselves.
  - SW-846 includes several guidance tests, including method 1040 for oxidizers, and others.

Remember: A Hazardous Characteristic Determination Must be Made Regardless of Listing Status

- **Even if the waste is listed, the generator must still determine if the waste exhibits a characteristic** in order to comply with land disposal restrictions (LDR) in 40 CFR Part 268
  - Need the full list of applicable waste codes to identify all necessary treatment

Note: Under 268.9(b), the treatment standard for the listed code will operate in lieu of the standard for the characteristic (if the constituent causing the characteristic has a treatment standard via the listed code).

Most Frequently Generated Wastes by Colleges and Universities (2015 BR)

Waste Code	Number of Large Quantity Generators	Volume Generated (Tons)
F001-F005 (Listed solvents)	1721	3852
Lab Packs	1401	778
D001 (Ignitable waste)	1233	478
ICR (mixed characteristic wastes)	957	285
D002	891	387
Numerous P and U Listed wastes	Several hundred	Considerably less

§262.11(e): You've determined you have generated a hazardous waste

- (e) If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for other possible exclusions or restrictions pertaining to management of the specific waste.

§262.11(f): Recordkeeping

- A small or large quantity generator must maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste, as defined by 40 CFR 261.3.
- Records must be maintained for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal.
- The records must include, but are not limited to, the following types of information:
  - the results of any tests, sampling, waste analyses, or other determinations made in accordance with this section;
  - records documenting the tests, sampling, and analytical methods used to demonstrate the validity and relevance of such tests;
  - records consulted in order to determine the process by which the waste was generated, the composition of the waste, and the properties of the waste; and
  - records which explain the knowledge basis for the generator's determination, as described at 40 CFR 262.11(d)(1).

§262.11(g): RCRA Waste Codes

- If the waste is determined to be hazardous, small quantity generators and large quantity generators must identify all applicable EPA hazardous waste numbers (EPA hazardous waste codes) in subparts C and D of part 261. Prior to shipping the waste off site, the generator also must mark its containers with all applicable EPA hazardous waste numbers (EPA hazardous waste codes) according to § 262.32.

Bottom Line: You got to get it right!

Introductory Text to § 262.11

A person who generates a solid waste, **as defined in 40 CFR 261.2**, must make an **accurate determination** as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations.

- If hazardous waste is not accurately identified, it cannot be properly managed. (See 1991 policy letter; RCRA online RO 11599)

- Generator's success in complying with RCRA begins with making an accurate waste determination; overall success of RCRA program predicated on generators (and TSDFs) making an accurate hazardous waste determination.

Summary: What does making an waste determination mean practically?

- You can determine the solid waste you generated is or is not a hazardous waste at the point of generation accurately
- You use an analytical process, whether explicit or implicit, incorporating knowledge of the process and materials, and possibly testing, to make the determination
  - You just don't guess!
- You document the information used to make that determination
- You have sufficient information to identify the hazards of the waste to manage it safely while accumulating on-site
- You are able to identify the RCRA waste codes before shipping the hazardous waste off-site for subsequent treatment.

Comparison of New vs. Old §262.11

New	Old
A person who generates a solid waste, **as defined in 40 CFR 261.2**, must make an accurate determination as to whether that waste is a hazardous waste	A person who generates a solid waste, **as defined in 40 CFR 261.2,** must determine if that waste is a hazardous waste using the following method:
(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 may change the properties of the waste such that the RCRA classification of the waste may change.	
(b) A person must determine whether the solid waste is excluded from regulation under 40 CFR 261.4**.**	(a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4.
(c) If the waste is not excluded under 40 CFR 261.4, the person must then use knowledge of the waste to determine if the waste meets any of **the listing descriptions** under subpart D of 40 CFR part 261.	(b) He must then determine if the **waste is listed as a hazardous waste** in subpart D of 40 CFR part 261.

Comparison of New vs. Old §262.11

NEW	OLD
(c) Continued Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information. If the waste is listed, the person may file a delisting petition under 40 CFR 260.20 and 260.22 to demonstrate to the Administrator that the waste from this particular site or operation is not a hazardous waste.	

Comparison of New vs. Old §262.11 (cont.)

New	Old
(d) The person then must also determine whether the waste exhibits one or more hazardous characteristics as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section, or a combination of both. (1) The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include.....; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents. A test other than a test method set forth in subpart C of 40 CFR part 261, or an equivalent test method approved by the Administrator under 40 CFR 260.21, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, such tests do not, by themselves, provide definitive results. Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR 260.10. (2) When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in subpart C of 40 CFR part 261 or according to an equivalent method approved by the Administrator under 40 CFR 260.21	(c) For purposes of compliance with 40 CFR part 268, or if the waste is not listed in subpart D of 40 CFR part 261, the generator must then determine whether the waste is identified in subpart C of 40 CFR part 261 by either: (1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261, or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

Comparison of New vs. Old §262.11 (cont.)

NEW	OLD
(e) If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for other possible exclusions or restrictions pertaining to management of the specific waste.	(d) If the waste is determined to be hazardous, the generator must refer to parts 261, 264, 265, 266, 267, 268, and 273 of this chapter for possible exclusions or restrictions pertaining to management of the specific waste.
(f) Recordkeeping for small and large quantity generators.	
(g) Identifying hazardous waste numbers for small and large quantity generators.	

Counting and Hazardous Waste Generator Categories

Determining Generator Category and Hazardous Waste Counting (§ 262.13)

- A hazardous waste generator has always had to know what category of generator it is (VSQG, SQG, or LQG).
- The regulations did not previously present requirements about determining generator categories in a clear and succinct way.
- New § 262.13 clarifies the process for a generator to determine its generator category each calendar month for generators of acute hazardous waste, generators of non-acute hazardous waste, and generators that mix acute and non-acute hazardous wastes.
  - "Acute" hazardous waste and "non-acute" hazardous waste
- This provision also discusses how mixing of hazardous waste with non-hazardous waste impacts generator category.

Hazardous Waste Counting

- Introductory language of § 262.13
  - A generator must determine its generator category
  - The category is based on the amount of hazardous waste that is generated in a calendar month.
  - A generator's category can change from month to month.
  - The counting requirements are based on the RCRA statute & are critical to the framework of the generator regs

Hazardous Waste Counting

- 262.13 (a): Basic procedures for determining generator category if generating only non-acute hazardous waste or only acute hazardous waste
- 262.13(b): Procedures for determining generator category if generating a combination of acute and non-acute hazardous waste
- 262.13 (c) & (d): Those materials that do not need to be included when counting hazardous waste
  - Existing provisions being moved from 261.5 (c) & (d) + hazardous waste from an episodic event
- 262.13 (e): Statement that a generator uses its determined category to identify which regulations apply

Generating Acute and Non-Acute Hazardous Waste in the Same Month

- Before the final generator rule, EPA had issued contradictory guidance documents on whether a generator could be one category of generator for acute waste and another for non-acute waste in the same month.
- The Generator final rule provisions make it clear that acute hazardous waste, non-acute hazardous waste, and residues of clean ups of hazardous waste are all considered in making a generator's monthly category determination.

Hazardous Waste Counting

TABLE 1 to § 262.13—Generator Categories Based on Quantity of Waste Generated In A Calendar Month

Quantity of acute hazardous waste generated in a calendar month	Quantity of non-acute hazardous waste generated in a calendar month	Quantity of residues from a cleanup of acute hazardous waste generated in a calendar month	Generator Category
> 1 kg	Any amount	Any amount	**Large quantity generator**
Any amount	≥ 1,000 kg	Any amount	**Large quantity generator**
Any amount	Any amount	> 100 kg	**Large quantity generator**
≤ 1 kg	> 100 kg and < 1,000 kg	≤ 100 kg	**Small quantity generator**
≤ 1 kg	≤ 100 kg	≤ 100 kg	**Very small quantity generator**

Comparison of Old § 261.5 vs. New § 262.13

New	Old
262.13 Introductory Text A generator must determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month, as defined in § 260.10 of this chapter.	
262.13 (a) & (b) (a) *Generators of either acute hazardous waste or non-acute hazardous waste.* A generator who either generates acute hazardous waste or non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing the following: (1) Counting the total amount of hazardous waste generated in the calendar month; (2) Subtracting from the total any amounts of waste exempt from counting as described in paragraphs (c) and (d) of this section; and (3) Determining the resulting generator category for the hazardous waste generated using Table 1 of this section. (b) *Generators of both acute and non-acute hazardous wastes.* A generator who generates both acute hazardous waste and non-acute hazardous waste in the same calendar month shall determine its generator category for that month by doing the following: (1) Counting separately the total amount of acute hazardous waste and the total amount of non-acute hazardous waste generated in the calendar month; (2) Subtracting from each total any amounts of waste exempt from counting as described in paragraphs (c) and (d) of this section; (3) Determining separately the resulting generator categories for the quantities of acute and non-acute hazardous waste generated using Table 1 of this section; and (4) Comparing the resulting generator categories from paragraph (b)(3) of this section and applying the more stringent generator category to the accumulation and management of both non-acute hazardous waste and acute hazardous waste generated for that month.	

Comparison of Old § 261.5 vs. New § 262.13

New	Old
262.13 (c) (c) When making the monthly quantity-based determinations required by this part, the generator must include all hazardous waste that it generates, except hazardous waste that: (1) Is exempt from regulation under 40 CFR 261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8; (2) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in 40 CFR 260.10; (3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 40 CFR 261.6(c)(2); (4) Is used oil managed under the requirements of 40 CFR 261.6(a)(4) and 40 CFR part 279; (5) Is spent lead-acid batteries managed under the requirements of 40 CFR part 266 subpart G; (6) Is univ*ersal waste* managed under 40 CFR 261.9 and 40 CFR part 273; (7) Is a hazardous waste that is an unused commercial chemical product (listed in 40 CFR part 261 subpart D or exhibiting one or more characteristics in 40 CFR part 261 subpart C) that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to § 262.213. For purposes of this provision, the term eligible academic entity shall have the meaning as defined in § 262.200; or (8) Is managed as part of an episodic event in compliance with the conditions of subpart L of this part.	261.5(c) (c) When making the quantity determinations ~~of~~ this part ~~and 40 CFR part 262~~, the generator must include all hazardous waste that it generates, except hazardous waste that: (1) Is exempt from regulation under 40 CFR 261.4(c) through (f), 261.6(a)(3), 261.7(a)(1), or 261.8; ~~or~~ (2) Is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in 40 CFR 260.10; ~~or~~ (3) Is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under 40 CFR 261.6(c)(2); ~~or~~ (4) Is used oil managed under the requirements of 40 CFR 261.6(a)(4) and 40 CFR part 279; ~~or~~ (5) Is spent lead-acid batteries managed under the requirements of 40 CFR part 266, subpart G; ~~or~~ (6) Is universal waste managed under 40 CFR 261.9 and 40 CFR part 273; (7) Is a hazardous waste that is an unused commercial chemical product (listed in 40 CFR part 261, subpart D or exhibiting one or more characteristics in 40 CFR part 261, subpart C) that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to §262.213. For purposes of this provision, the term eligible academic entity shall have the meaning as defined in §262.200 of Part 262.

Comparison of Old § 261.5 vs. New § 262.13

New	Old
262.13(d) (d) In determining the quantity of hazardous waste generated in a calendar month, a generator need not include: (1) Hazardous waste when it is removed from on-site accumulation, so long as the hazardous waste was previously counted once; (2) Hazardous waste generated by on-site treatment (including reclamation) of the generator's hazardous waste, so long as the hazardous waste that is treated was previously counted once; and (3) Hazardous waste spent materials that are generated, reclaimed, and subsequently reused on site, so long as such spent materials have been previously counted once.	261.5(d) (d) In determining the quantity of hazardous waste generated, a generator need not include: (1) Hazardous waste when it is removed from on-site ~~storage~~; or (2) Hazardous waste ~~produced~~ by on-site treatment (including reclamation) of ~~his~~ hazardous waste, so long as the hazardous waste that is treated was counted once; or (3) Spent materials that are generated, reclaimed, and subsequently reused on-site, so long as such spent materials have been counted once.
262.13 (e) (e) Based on the generator category as determined under this section, the generator must meet the applicable independent requirements listed in § 262.10. A generator's category also determines which of the provisions of §§ 262.14, 262.15, 262.16 or 262.17 must be met to obtain an exemption from the storage facility permit, interim status, and operating requirements when accumulating hazardous waste.	

Mixing

Mixing Solid Waste with Hazardous Waste – What changed?

- Clarified and distinguished VSQGs mixing requirements from SQGs and LQGs
- Clarified VSQGs mixing solid waste with hazardous wastes and generating characteristic waste must count that waste towards their generator category for that month
- Made clear that SQGs and LQGs mixing solid wastes with hazardous wastes are subject to certain restrictions and requirements.

Mixing Solid Waste with Hazardous Waste – What changed for VSQGs?

- VSQGs mixing solid waste with hazardous waste
- Clarifies that a VSQG mixing hazardous waste with solid waste can remain subject to VSQG requirements (i.e., § 262.14), even though the mixture may exceed the VSQG quantity limits (either 100 kg per month generated or 1,000 kg accumulated on site at any one time) unless the mixture exhibits one or more of the characteristics of a hazardous waste.
- If the resultant mixture exhibits a hazardous waste characteristic, the VSQG must add the quantity from the resulting mixture with any other regulated hazardous waste generated in the calendar month and determine whether the total quantity generated exceeds the generator calendar month quantity identified in the definition of generator categories found in 40 CFR 260.10.

Mixing Solid Waste with Hazardous Waste – What Changed for SQGs and LQGs?

SQGs and LQGs mixing solid waste with hazardous waste

- The mixture rule in §§ 261.3(a)(2)(iv), (b)(2) and (3), and (g)(2)(i);
- The prohibition of dilution rule at § 268.3(a);
- The land disposal restriction requirements of § 268.40 if a characteristic hazardous waste is mixed with a solid waste so that it no longer exhibits the hazardous characteristic; and
- The hazardous waste determination requirement at § 262.11.

Mixing Solid Waste with Hazardous Waste – What changed?

- Generators can't dilute their hazardous wastes unless it provides a useful and effective contribution(i.e. possess a unique property to remove the hazardous characteristic from the hazardous waste instead of merely diluting it).
- The prohibition of dilution rule at § 268.3(a) reads:
- Except as provided in paragraph (b) of this section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with subpart D of this part, to circumvent the effective date of a prohibition in subpart C of this part, to otherwise avoid a prohibition in subpart C of this part, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

Mixing: Why the Changes?

- Changes are designed to clarify the language that was found at §§ 261.5(h) and (i) which addressed the mixing of hazardous waste and nonhazardous waste by a VSQG and the implications to its generator category if the mixture is determined to be a hazardous waste.
- The language specifically addressed how the regulations apply when VSQG hazardous waste is mixed with nonhazardous solid waste and the resulting combination exceeds the VSQG quantity limits.
  - (h) Hazardous waste subject to the reduced requirements of this section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this section, unless the mixture meets any of the characteristics of hazardous waste identified in subpart C.
  - (i) If any person mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this section, the mixture is subject to full regulation.
- Just as important, previous regulations also did not discuss SQGs and LQGs mixing solid wastes with hazardous wastes.

Marking and Labeling

Marking and Labeling

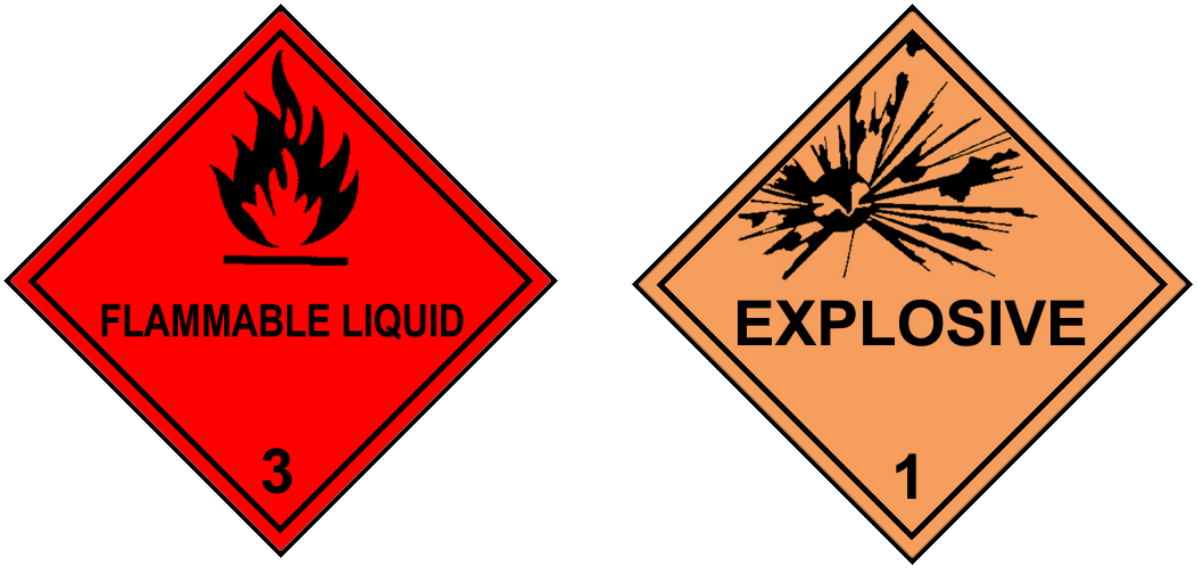
- Marking and labeling requirements apply throughout the hazardous waste management regulations.
- Final Rule: What changed?
- Container and tank labels must have the words “Hazardous Waste” and also indicate the hazards of the contents of the containers
- Flexibility in how to comply with this new provision; can indicate the hazards of the contents of the container using any of several established methods (e.g., DOT hazard communication, OSHA hazard statement or pictogram, NFPA chemical hazard label, or RCRA characteristic)
- For drip pads and containment buildings, the generator can keep this information in logs or records near the accumulation unit
- Note, the labels are not required to include the identity of the contents of the container (as proposed)

Examples of Labels that indicate the “Hazards”

- The applicable hazardous waste characteristic (i.e., ignitable, corrosive, reactive, toxic)

Examples of Labels that indicate the “Hazards”

- Hazard communication consistent with DOT (49 CFR part 172 subpart E – labeling or subpart F – placarding)



Examples of Labels that indicate the “Hazards”

- Hazard statement or pictogram consistent with OSHA (29 CFR 1910.1200)

Examples of Labels that indicate the “Hazards”

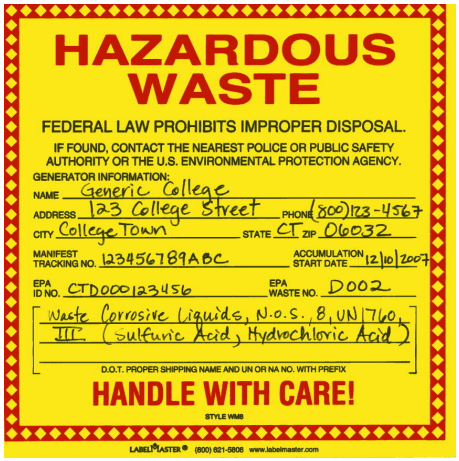
- Chemical hazard label consistent with the National Fire Protection Association code 704

Marking and Labeling

- EPA is providing flexibility on how to indicate the hazards of the contents of the containers
- Some clarifications:
  - Labeling should occur at the initial point of generation
  - For containers that have small containers inside (e.g., tubes, vials, etc.), generators can mark the outer/secondary container or attach a tag with the required information
  - For containers that are in a container that already has appropriate marking and labeling (e.g., a CCP in its original container with an intact label), the existing marking and labeling is sufficient, provided it indicates the hazards of the chemical

Marking and Labeling

- Per §262.32, Generators must add the RCRA waste codes before shipping waste off-site
  - This allows receiving TSDFs to know how to treat the wastes to meet land disposal restriction requirements
  - Generators must mark their containers with the applicable RCRA waste codes or use a bar-coding system that performs the same function



Marking and Labeling – Why the Changes?

- Previous RCRA labeling regulations did not require generators to identify and indicate the hazards of hazardous wastes accumulated in containers, tanks, drip pads and containment buildings
  - Resulted in a failure to communicate risks associated with wastes being accumulated/stored in different locations
  - Can impact workers, waste handlers, emergency responders and visitors

- Areas affected include:
  - Generator satellite accumulation areas and central accumulation areas
  - Transfer facilities consolidating hazardous wastes from different generators
  - Generator container and tank storage areas at TSDF

Working through an Example

- **Characterizing and making an accurate HW determination, including identifying RCRA waste codes and hazards?**
- **What are the questions that should be asked and answered?**
- **Scenario**: A researcher has completed with his/her experiment and needs to dispose of any remaining materials/residuals. What are the questions one would need to ask and answer to determine if a hazardous waste has been generated?

- **Question 1**: What chemicals were used? Where would one find this information?
- **Answer:** So let's assume the chemicals used in the experiment were a **mixture of xylene and benzene.**
- **Question 2: Any reason to exclude this waste?**
- **Question 3:** What is the percentage of each constituent? How could one determine this?
- **Answer:** Assume 25% xylene and 75% benzene.

- **Question 4:** Is this waste a listed waste?
- **F005 listing description**: The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, **benzene,** 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
- **F003 listing description**: The following spent non-halogenated solvents: **Xylene**, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
- **Answer:** Yes. Assume preliminary waste codes are F003 and F005.

F003 Solvents

- **F003 listing description**: The following spent non-halogenated solvents: **Xylene**, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; **all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005;** and still bottoms from the recovery of these spent solvents and spent solvent mixtures.
- Solvent mixtures containing F003 solvents are hazardous wastes under only two conditions:
  1. The solvent mixture contains only F003 constituents which are pure or technical grade (i.e., 99.9%)
  2. The mixture contains one or more F003 constituents (at any concentration) and 10 percent or more of the other F-listed solvents before use.

- **Question 5: What if** the solvent mixture contained 80% benzene (F005) + 1% xylene (F003) + 19% water? What would waste codes be?
- Answer: F005/F003. Why? The F005 waste code would apply because it contains more than 10% F005 solvent before use, while the F003 listing applies because it contains more than 10% F001, F002, F004, or F005 and **any** amount of F003 solvent constituents before use.
- **Question 6: What if the** solvent mixture contained 9% benzene (F005) + 1% xylene (F003) + 90% water?
- Answer: The waste would not carry either an F005 or an F003 listing waste code.

- **Question 7: Is the waste also characteristically hazardous?** What hazardous properties or characteristics are exhibited by the waste?

- Does waste exhibit the characteristic of ignitability (D001)?
- Does waste exhibit the characteristic of corrosivity (D002)?
- Does waste exhibit the characteristic of reactivity (D003)?
- Does waste exhibit the characteristic of toxicity (D004 –D043)?

Answer: D001 and D018

Additional questions to ask of characteristic wastes

Question 8: What are the chemical properties of the waste?

- **Is it ignitable?** Liquid or aqueous? Solid but has chance to self-combust? Ignitable compressed gas? Oxidizer? What's the flashpoint? How would you determine it? Testing? Knowledge?
- **Is it corrosive?** What is pH determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in §260.11 of this chapter.
- **Is it reactive?** Is it normally unstable and readily undergoes violent change without detonating? Does it react violently with water? Does it form potentially explosive mixtures with water…….
- **Is it toxic**? Does the mixture contain any of the chemicals found in Table 1 of 40 CFR 261.24? If so, what is concentration threshold to determine if toxic? What is concentration of sample waste? Is concentration of waste 20 times regulatory level found in Table 1?

- **Question 9:** So what waste codes are applicable to this waste?
  Is it F003, F005, D001, D018?
- **Answer:** It all depends.
  - Be aware of 40 CFR 268.9 (a) and (b) and the "in lieu of" principle for land disposal restrictions.

- **Question 10:** Do we have enough information to identify the hazards of this waste?
- Answer: We sure do!

Module 3: Revisions that Apply to Very Small Quantity Generators

Contents of Module 3

- VSQGs
- Episodic Generation
- VSQG Consolidation

Very Small Quantity Generators (VSQG)

- Limited Requirements under both the previous regulations and the new final rule
  - Same basic requirements but they are now located in § 262.14
- The new final rule provides new options for flexibility for VSQGs
  - Episodic Generation
  - Consolidation at an LQG under the same company

Episodic Generation

Episodic Generation

- Current RCRA rules lack flexibility to address an "episodic" change in a generator's regulatory category:
  - Planned event (i.e., periodic maintenance such as tank cleanouts)
  - Unplanned event (i.e., production upset conditions, spill, acts of nature)

- Generators must comply with more comprehensive set of regulations for short period of time when they are not regular generators of higher levels of hazardous waste.

Episodic Generation

- Applicable to VSQGs and SQGs.
- New part 262 subpart L allows generators that temporarily change their generator category as a result of an episodic event to operate under streamlined requirements.
- All hazardous waste from episodic events must be shipped by hazardous waste transporter with a hazardous waste manifest to a RCRA-designated facility (TSDF or recycler).

Episodic Generation

Where do I find the Episodic Generation Regulations?

- § 262.13(c)(8) states that hazardous waste managed as part of an episodic event does not have to be counted toward a generator's category
- Part 262 subpart L (§§ 262.230-262.233) contains the conditions for the episodic generation provision.

Episodic Generation

What is an Episodic Event?

- *Episodic event* means an activity or activities, either planned or unplanned, that does not normally occur during generator operations, resulting in an increase in the generation of hazardous wastes that exceeds the calendar month quantity limits for the generator's usual category.
- *Planned episodic event* means an episodic event that the generator planned and prepared for, including regular maintenance, tank cleanouts, short-term projects, and removal of excess chemical inventory
- *Unplanned episodic event* means an episodic event that the generator did not plan or reasonably did not expect to occur, including production process upsets, product recalls, accidental spills, or “acts of nature,” such as tornado, hurricane, or flood.

(§ 262.231)

Episodic Generation

Events Per Year

- One episodic event per year + one opportunity to petition EPA/ authorized state for a second event
- A generator can complete multiple projects during the time limit for the episodic event
- Petition process allows a total of 1 unplanned and 1 planned event per year
  - For example:
    - A generator conducts a clean out in the spring and then has an unexpected recall in October
    - A generator plans a small episodic project for the fall but a hurricane causes facility damage in July

Episodic Generation

Duration of an Episodic Event

- The first day of an episodic event is the first day of generation of waste for the event—for an unplanned event, this is the first day of the storm, spill, other unexpected event
- An episodic event can last 60 days
- All hazardous waste must be shipped off site by the end of 60 days or that waste counts toward the generator's category and must be managed under the regulations for that category of generator
- Time frame should allow waste from unplanned events to be characterized and allow arrangements for disposal to be made
- If a generator doesn’t know if the event is going to be episodic, we recommend notification

Episodic Generation

Notification

- Both VSQGs and SQGs must notify about episodic events using Site ID from (EPA form 8700-12)
- Planned event: notify 30 or more days prior to the episodic event on Site ID form
- Unplanned event: notify within 72 hours of the event by phone or email and follow up with Site Id form

Notification elements

- A VSQG must get an EPA ID number (automatic upon submitting the Site ID form)
- Start and end dates of the episodic event (no more than 60 calendar days)
- Reason for the event
- Types of hazardous waste
- Estimated quantities of hazardous waste
- Emergency coordinator contact information

Episodic Generation

Hazardous Waste Accumulation Standards

- Necessary to ensure protective management of larger quantities of hazardous waste

  VSQGs

  Marking and labeling:
  - "Episodic hazardous waste;"
  - An indication of the hazards of the contents; and the date the episodic event began
    - For tanks, inventory logs or other records are appropriate, but must be accessible
  - Manage the hazardous waste in a manner that minimizes the possibility of an accident or release
    - Containers should be in good condition, chemically compatible with contents, and kept closed
      - Part 265 subpart I would satisfy this condition
    - Tanks must have procedures in place to prevent overflow (*e.g.*, a means to stop inflow such as a waste feed cutoff system or bypass system to a standby tank when hazardous waste is continuously fed into the tank). Tanks must be inspected at least once each operating day.
  - Treatment is not allowed by VSQGs (except in an on-site elementary neutralization unit).

Episodic Generation

Hazardous Waste Accumulation Standards

SQGs

Marking and labeling:

- "Episodic Hazardous Waste;"
- An indication of the hazards of the contents and the date the episodic event began
  - For tanks, inventory logs or other records are appropriate, but must be accessible
- All conditions of 262.16 (e.g., container and tank standards, employee training, emergency preparedness and prevention)
- Hazardous wastes on drip pads and in containment buildings cannot be managed under subpart L

Episodic Generation

Recordkeeping

- Cradle to grave management of hazardous waste is required
- Records must be maintained for 3 years from the completion of each event

Elements

- Beginning and end date of the episodic event
- A description of the episodic event
- Types of hazardous wastes generated
- Quantities of hazardous wastes generated
- How the hazardous waste was ultimately managed and the name of the RCRA-designated facility or facilities that received the hazardous waste
- Name of the hazardous waste transporter(s)
- Approval letter from EPA if a petition was submitted and approved for a second event

- Copies of the notification form and the hazardous waste manifest cover most of the elements.

Episodic Generation

Petition for a Second Event

- If petition is approved, total of one planned and one unplanned event per calendar year

Petition requirements

- Made in writing
- Include reason for the event; nature of the event; estimated amount of hazardous waste to be managed; how the waste will be managed; estimated length of the episodic event; and information about the previous event in the calendar year

Planned event

- Petition submitted to EPA/authorized state 30 or more days prior to the event
- Generator may not manage hazardous waste from a planned second episodic event under subpart L until approval is received on its petition

Unplanned event

- EPA/authorized state must be notified within 72 hours by phone or email, followed by submittal of 8700-12 and an indication that this is a petition for a second event
- Generators can manage hazardous waste from an unplanned second episodic event under subpart L while waiting for approval of its petition
- If a petition is denied, generator must start managing hazardous waste under the conditions for the applicable generator category.

Episodic Generation – Example 1

- **Planned event**: In early 2018, an SQG plans a maintenance project in the fall and anticipates they are likely to exceed the SQG limit of 1000 kg in October 2018.

- The event starts September 17, 2018, and is scheduled to be completed by November 5, 2018. Sixty days are over on November 16, 2018.
  - This CAN be an EPISODIC EVENT!
- Preparation:
  - SQG identifies waste codes for waste to be generated and estimates waste amounts
  - SQG notifies state before August 18, 2018, using the Site ID form (30 days before the event begins)
  - SQG sets up contracts and plans for waste transport and management. All waste must be off site by November 16th.

Episodic Generation – Example 1 (continued)

- **Planned event**: In early 2018, an SQG plans a maintenance project in the fall and anticipates they are likely to exceed the SQG limit of 1000 kg in October 2018.

- Event:
  - SQG completes maintenance project, manages the hazardous waste under 262.16 standards and sends all waste for hazardous waste management.
  - (If the event or waste management runs past November 16th, the SQG must begin operating as an LQG)
- After Event:
  - SQG maintains records for the event for 3 years (a description of the event and notifications & manifests).
  - If SQG has ANOTHER unplanned episodic event in 2018 after the maintenance project is over, it has to petition the state for a second event.

Episodic Generation – Example 2

- **Unplanned event**: In March 2018, a VSQG experiences a storm that causes a spill of product, and they expect the clean up will cause them to exceed the 100 kg limit for March and April, 2018.

- The storm occurs on March 8. This is the first day of the event. The VSQG isn't sure if spilled chemicals are hazardous waste but they suspect they may be. Sixty days are over on May 7, 2018.
  - This CAN be an EPISODIC EVENT!

Episodic Generation – Example 2 (continued)

- **Unplanned event**: In March 2018, a VSQG experiences a storm that causes a spill of product, and they expect the clean up will cause them to exceed the 100 kg limit for March and April, 2018.

- Event:
  - VSQG notifies state within 72 hours by call or email & follows up with a Site ID form; if the VSQG already had a planned event in 2018, it must submit a petition and can operate under the episodic standards while waiting for approval from the state
  - VSQG samples hazardous waste and sets up hazardous waste transportation and disposal
    - If the clean up material is not hazardous waste or does not exceed the VSQG threshold, the generator can work with the state to cancel the event
  - VSQG completes cleanup, manages the hazardous waste under VSQG episodic generator standards and sends all waste for hw management by May 7th.
  - (If the event or waste management runs past May 7th, the VSQG must begin operating as an SQG or LQG, as appropriate)
- After Event:
  - VSQG maintains records for the event for 3 years (notifications and manifests)
  - If VSQG has ANOTHER episodic event (planned) in 2018 after the maintenance project is over, it has to petition the state for a second event.

VSQG Waste Consolidation

Issue that the New Consolidation Provision Addresses

- Some companies would like to be able to consolidate wastes from their own VSQG sites for more efficient shipping and hazardous waste management
  - Reduces liability for company as a whole by ensuring proper management of hazardous waste
  - Sending to a RCRA-designated facility is the most environmentally sound option
  - Previously, an LQG needed a RCRA permit to receive VSQG wastes

VSQG Waste Consolidation

Final Consolidation Provision

- Consolidate waste at an LQG under the control of the same person:
  - Person – as defined under RCRA in § 260.10 - means an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body
  - Control – means the power to direct policies at the facility
- VSQG requirements
  - Marks and labels waste containers with “Hazardous Waste” and the hazards (as discussed in Module 2)
- No hazardous waste manifest is required and hazardous waste transporters do not have to be used

VSQG Waste Consolidation

LQG requirements

- Notifies state on Site ID Form that it is participating in this activity and identifies which VSQGs are participating
- Recordkeeping for each shipment – normal business records
- Manages consolidated waste as LQG hazardous waste including ensuring final treatment or disposal is at a RCRA-designated facility (TSDF or recycler)
- Reports in Biennial Report – there will be a different source code for the VSQG consolidated waste to distinguish from the LQG's own generated waste

- We did not extend this provision to SQGs due to more complicated implementation issues but an SQG can participate if they notify and act as an LQG (meeting all LQG requirements including getting the VSQG HW off-site in 90 days)

VSQG Waste Consolidation

FAQs about new Consolidation Provision

- When does the 90-day clock start for VSQG consolidated waste?
  - When the VSQG waste gets to the LQG, the 90-day clock to accumulate the waste starts
- Is there any accumulation limit for how much waste can be consolidated at an LQG?
  - No, there is no overall accumulation limit but the waste must be sent off-site to a RCRA TSDF or recycler within 90 days
- Does the LQG add the VSQG waste to its annual generation amount?
  - The LQG would report both its own generated waste and the waste consolidated from its VSQGs on the Biennial Report. However, there will be a different source code for the VSQG waste so they can distinguish between their own HW and the consolidated waste

VSQG Waste Consolidation

FAQs about new Consolidation Provision

- When transporting the waste from the VSQG to the LQG, what requirements must be met?
  - There are no specific RCRA requirements for the transport but any applicable DOT requirements would continue to apply
- Is there a quantity limit for shipments from the VSQG?
  - No, but the VSQG has to stay within its own accumulation limit
- Can the VSQG and the LQG be in different states?
  - Yes, if both states have adopted the consolidation provision. If the HW is transported through other states, the generator should check with the transit state to see if they can pass through
- What marking and labeling should be on the containers?
  - At the VSQG, the words “Hazardous Waste” and the hazards
  - At the LQG, the words “Hazardous Waste,” the hazards, and the accumulation start date

VSQG Waste Consolidation - Example

- Army reserve facilities that are VSQGs could consolidate their HW at an Army base that is an LQG (assuming they are in states that have adopted the consolidation provision)
  - They could transport the waste themselves and would not need to manifest it as long as the LQG has notified, including listing the participating VSQGs on the Site ID form
  - The Army reserve sites (the VSQGs) would need to mark the containers with the words "Hazardous Waste" and the hazards of the waste in the containers. For example, if they generate spent solvents that are ignitable, the containers could be marked:

VSQG Waste Consolidation - Example

- Once the VSQG waste arrives at the Army base, the LQG would add the accumulation start date and manage the waste as LQG waste, including getting it off-site to a TSDF in 90 days
- The LQG would also keep the shipping records of the waste received from the VSQG for 3 years
  - These records would include:
    - the name, address, and contact info for the VSQG, and
    - a description of the waste received, including the quantity and date the VSQG waste was received
- The LQG would report the VSQG waste consolidated at their site on their BR using the new source code

Module 4: Changes to SQG and LQG Requirements

Contents of Module 4

- Satellite Accumulation Areas
- Waste Accumulation in Drip Pads and Containment Buildings
- Waiver to 50-Ft Requirement
- Emergency Preparedness and Planning
- Personnel Training for LQGs
- Closure

Satellite Accumulation Areas

Reorganization and Clarifications

- SAA requirements are now found in their own part of the generator regulations - §262.15
- Clarifications include:
  - Explicitly state that hazardous wastes not be mixed or placed in a container with other hazardous wastes that are incompatible – applying the same storage standard for SAAs as CAAs in regard to incompatible wastes
  - Allow containers to remain open temporarily under limited circumstances, when necessary for safe operations
  - Provides maximum weight (1 kg) in addition to volume (1 quart) for acute hazardous waste limit

Clarifications to SAA requirements (continued)

- Clarifies that “three days” means three consecutive calendar days for when waste must be moved to CAA or permitted TSDF
- Rescinds memo allowing reactive hazardous waste to be stored away from the point of generation
  - If waste is so dangerous it needs to be stored separately, then it needs to go directly to the CAA
- Makes marking and labeling requirements consistent with central accumulation areas
  - Labeled with the words “Hazardous Waste” and the hazards
  - Do not need an accumulation start date but do need to move in 3 calendar days when accumulation limit is reached – either to the CAA or TSDF

Preamble Clarification re: SAAs

"Under the Control of the Operator" means:

- The operator is someone familiar with the operations generating the HW
- Is aware of and able to attend to these operations, if needed
- Provides some measure of controlled access

Some examples of demonstrating the SAA is under the control of an operator:

- The operator controls access to SAA by access card, key, or lock box
- The operator accumulates waste in a locked cabinet and controls access to the key (even if access to the room is not controlled)
- The operator is regularly in view of the SAA during the course of their job
- The operator is able to see if anyone enters or exits the SAA

* There can be more than one operator having control of the SAA

Drip Pads and Containment Buildings

- Clarified in regulations that SQGs accumulating hazardous wastes on drip pads and in containment buildings must comply with technical standards of subparts W and DD, but otherwise comply regulations similar to SQGs wastes accumulating hazardous wastes in containers and tanks.
  - Previously, Federal Registers had not discussed SQGs accumulating hazardous wastes on drip pads and in containment buildings
  - However, Agency had issued guidance clarifying SQG requirements
- Restated Agency technical guidance and clarified in preamble that VSQGs may accumulate hazardous wastes on drip pads provided they comply with 40 CFR part 265 subpart W requirements.
- Note: SQGs only have 90 days to accumulate hazardous wastes in containment buildings

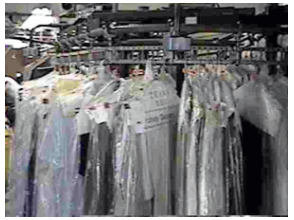
Waiver to 50-Foot Requirement

What changed?

- Final rule allows LQGs to approach the authority having jurisdiction (AHJ) over the fire code (e.g., fire marshal or fire department) to apply for a site-specific waiver from this requirement if the AHJ believes that the precautions taken by the facility make the waiver appropriate and safe (§262.17(a)(1)(vi)). The AHJ will help the LQG determine a safe and practical location. The LQG is then required to keep the written approved waiver in their records.

Why the change?

- The generator regulations previously required that containers holding ignitable or reactive waste be located at least 15 m (50 feet) from the facility's property line, with no exceptions. Meeting this requirement could be impossible, especially in urban areas where properties are sometimes less than 100 feet wide



Personnel Training for LQGs

- Maintains existing regulatory framework/requirements, but explicitly allows the use of computer-based tools:
  - "Facility personnel must successfully complete a program of classroom instruction, online training (*e.g.*, computer-based or electronic), or on-the-job training that teaches them to perform their duties in a way that ensures compliance with this part."

(§ 262.17(a)(7)(i)(A))

Emergency Preparedness and Planning

- Generator Rule made a wide variety of revisions to the emergency planning and preparedness requirements.
  - SQG regulations—§§262.16(b)(8) & (9)
  - LQG regulations—§ 262.17(a)(6) refers generators to part 262 subpart M
- Revisions are designed to improve emergency responders' ability to respond to events, improving compliance with existing requirements, and clarifying ambiguous regulations.
  - Scope of regulations
  - Contingency Plan Quick Reference Guide
  - Documentation of Arrangements
  - Technical Changes

Emergency Preparedness and Planning

Scope of the Emergency Preparedness and Planning Regulations

- Previous emergency preparedness regulations in part 262.34 stated that generators must comply "with the requirements for owners and operators in subparts C and D in 40 CFR part 265" for LQGs and "the requirements of subpart C of part 265" for SQGs
- Subparts C and D of part 265 do not include applicability statements relevant to generators of hazardous waste, making it unclear where these requirements apply at a generator's site
- Revised regulations clearly specify that the emergency planning and preparedness requirements apply where hazardous waste is being generated or accumulated at the generator's site—includes points of generation, satellite accumulation areas, and central accumulation areas (90-day areas)
- One-Plan is still applicable for generators under multiple statutes

Emergency Preparedness and Planning

Contingency Plan Quick Reference Guide

- The Quick Reference Guide is a new part of an LQG's contingency plan designed to provide easy access for emergency responders to the most critical information for an immediate response to an event
- New LQGs submitting contingency plans to also include a Quick Reference Guide (described as an Executive Summary in proposed rule)
- Existing LQGs to include a Quick Reference Guide when they otherwise update and submit their contingency plan

(§ 262.262)

Emergency Preparedness and Planning

Contingency Plan Quick Reference Guide

- Contents of the Quick Reference Guide (eight elements)
  - Types/names of hazardous waste and associated hazards
  - Estimated maximum amounts of hazardous wastes
  - Hazardous wastes requiring unique/special treatment
  - Map showing where hazardous wastes are 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 7/24-hour emergency telephone number(s)
- EPA encourages generators to work with local emergency authorities and others to identify additional information that could be included

Emergency Preparedness and Planning

Making and Documenting Arrangements with Local Emergency Responders

- The requirement for generators to make arrangements with local emergency responders is found in the previous regulations in part 265 subpart C (§ 265.37), applicable to both SQGs and LQGs.
- § 262.37(b) stated that when the state or local authorities refused to enter into agreements, it must be documented.
- Under the revisions, generators must document that they have attempted to make arrangements with local emergency responders (or that arrangements were sought but not obtained) and keep the documentation in the facility's operating record
- No specific form or type of documentation is required and additional flexibility is provided regarding where documentation can be retained

(§ 262.16(b)(8)(vi) & § 262.256)

Emergency Preparedness and Planning

- LQGs can eliminate unnecessary employee personal information in the contingency plan (§ 262.261(d))
  - Replacing addresses and phone numbers of employees with an emergency telephone number and, where applicable, a position title, as long as the number is staffed at all times
- SQGs and LQGs may determine the most appropriate locations for emergency equipment, when it is not possible or unsafe to have the equipment located immediately next to the generating equipment (§ 262.16(b)(8)(ii)/ § 262.252)
- Add "direct or unimpeded access" as a meaning for the term "immediate access" in SQG and LQG regulations (§ 262.16(b)(8)(iv)/§ 262.254)
- Stating that SQGs the location relevant emergency response information should be posted is "next to the telephone" (§ 262.16(b)(9)(ii))
- Clarify that SQGs have the option to use contractors to address releases (containment/cleanup) (§ 262.16(b)(9)(iv)(B))
- Large facilities with internal response capabilities may seek a waiver from entering into arrangements with local authorities (§ 262.16(b)(8)(vi)(C)/ § 262.256(c)

Closure: What Changed and Why?

- Consolidates closure requirements in one place to improve user-friendliness of regulations
- Requires LQGs accumulating hazardous wastes in containers to close as landfill if unable to meet closure performance standards; i.e., clean close
- Requires LQGs to notify when closing its facility
  - 30 days prior to closing facility
  - 90 days after closing facility and complied with closure performance standards
- Provides option of LQG closing waste accumulation unit by:
  - Notifying EPA or state they have met closure performance standards; or
  - Place notice in operating record within 30 days after closing waste accumulation unit and addressing closure when facility closes
- Clarifies that closure does not apply to SAAs

Drip Pads and Closure

- Notification requirements at closure no different than for other types of waste accumulation units
- However, closure performance standards for drip pad waste accumulation units maintain current regulatory framework:
  - Minimize the need for further maintenance by eliminating escape of hazardous wastes (§262.17 (a)(8)(iii)(A)(1))
  - Manage hazardous wastes generated from performing closure ((a)(8)(iii) (A)(3))
  - Remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste. (§265.445 (a))
  - If, after removing or decontaminating all residues, etc., LQG finds that not all contaminated subsoils can be practically removed or decontaminated, then it must close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (§265.310). (§265.445 (b))
- Note: Subparts G and H not applicable to drip pad operators.

Why did we make changes?

- Previous regulations confusing and contradictory
- Closure requirements were found below §262.34(a)(1)(iv)(B) which deals with containment buildings
  - "In addition, such a generator is exempt from all the requirements in subparts G and H of 40 CFR part 265, except for §§265.111 and 265.114."
- §265.111(c) sends generator to, among other citations,§265.197 for tanks
- Yet, §262.34(a)(1)(ii) states, "In tanks and the generator complies with the applicable requirements of subparts J, AA, BB, and CC of 40 CFR part 265 except §§265.197(c) and 265.200;…"

Why did we make changes? (Continued)

- Close important gaps
- LQGs accumulating hazardous wastes in tanks, containment buildings and drip pads must close as landfill (or equivalent) if unable to meet closure performance standards
- LQGs accumulating hazardous wastes in containers have no such requirements
- Yet, numerous damage cases found where LQGs accumulating hazardous wastes in containers abandoned their facility leaving EPA and/or states to clean up as Superfund removal action – often costing millions
- Prior to this rule, EPA and most states had no idea when an LQG closed its facility or waste accumulation unit

Closure: Comparison of New vs. Old Requirements

NEW	OLD
§ 262.17 (a) (8) (i) *Notification for closure of a waste accumulation unit.* (ii) *Notification for closure of the facility.*	
(iii) *Closure performance standards for container, tank systems, and containment building waste accumulation units.*	
(A) At closure, the generator must close the waste accumulation unit or facility in a manner that:	**§ 265.111** The owner or operator must close the facility in a manner that:
(1) Minimizes the need for further maintenance by controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition	(a) Minimizes the need for further maintenance, and (b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or

Closure: Comparison of New vs. Old Requirements

NEW	OLD
(2) Removes or decontaminates all contaminated equipment, structures and soil and any remaining hazardous waste residues from waste accumulation units including containment system components (pads, liners, etc.), contaminated soils and subsoils, bases, and structures and equipment contaminated with waste, unless § 261.3(d) of this chapter applies. *(3)* Any hazardous waste generated in the process of closing either the generator's facility or unit(s) accumulating hazardous waste must be managed in accordance with all applicable standards of parts 262, 263, 265 and 268 of this chapter, including removing any hazardous waste contained in these units within 90 days of generating it and managing these wastes in a RCRA Subtitle C hazardous waste permitted treatment, storage and disposal facility or interim status facility.	**§265.114 Disposal or decontamination of equipment, structures and soils.** During the partial and final closure periods, all contaminated equipment, structures and soil must be properly disposed of, or decontaminated unless specified otherwise in §§265.197, 265.228, 265.258, 265.280, or 265.310. **By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that hazardous waste in accordance with all applicable requirements of part 262 of this chapter.**

Closure: Comparison of New vs. Old Requirements

NEW	OLD
(4) If the generator demonstrates that any contaminated soils and wastes cannot be practicably removed or decontaminated as required in paragraph (a)(8)(ii)(A)(*2*) of this section, then the waste accumulation unit is considered to be a landfill and the generator must close the waste accumulation unit and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§ 265.310 of this chapter). In addition, for the purposes of closure, post-closure, and financial responsibility, such a waste accumulation unit is then considered to be a landfill, and the generator must meet all of the requirements for landfills specified in subparts G and H of part 265 of this chapter. (iv) *Closure performance standards for drip pad waste accumulation units.* At closure, the generator must comply with the closure requirements of paragraphs (a)(8)(ii) and (a)(8)(iii)(A)(*1*) and (*3*) of this section, and § 265.445(a) and (b) of this chapter. (v) The closure requirements of paragraph (a)(8) of this section do not apply to satellite accumulation areas.	**§ 265.197 (b)** If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (a) of this section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (§265.310). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in subparts G and H of this part. **Comparable text found for containment buildings.**

Module 5 – Recordkeeping and Reporting

Contents of Module 5

- Summary of Recordkeeping and Reporting Requirements
- Recordkeeping
- Reporting
- Site ID Walk Through

Summary of New Recordkeeping and Reporting Requirements

- New Recordkeeping Requirements
  - Episodic generation
  - VSQG consolidation
  - Tanks
  - Closure – waste accumulation unit(s)
  - 50-foot waiver
  - Arrangements with local authorities

- New Reporting Requirements
  - SQG Re-notification (Site ID form)
  - LQGs receiving wastes from VSQGs under control of same company (Site ID form & WR form of BR)
  - Episodic generation (Site ID form)
  - Biennial Reporting for Facilities Not Storing (WR form of BR)
  - Closure – facility and/or waste accumulation units (Site ID form)
  - Quick response guide (Summary of contingency plan)

New Recordkeeping Requirements: What Changes?

- Episodic generation
  - Maintain records of episodic event and any approved petitions in operating record for 3 years
- VSQG consolidation at same-company LQG
  - LQG is required to keep records of shipments from the VSQG for 3 years
    - These can be normal business records
    - Must identify the name, site address, and contact information for the VSQG
    - Must include a description of the hazardous waste received, including the quantity and the date the waste was received
- Tanks – demonstrating tank is emptied every 90 or 180 days
- Closure of waste accumulation unit
  - Maintain information of closed units as part of operating record
- 50-Foot Waiver
  - Maintain approval of waiver as part of operating record
- Arrangements with local authorities
  - Maintain record of arrangements as part of operating record

Tanks – Demonstrating Hazardous Waste Tanks are Emptied Every 90 or 180 Days

- SQGs and LQGs may use logs, monitoring equipment or other records to demonstrate that hazardous waste is either emptied or removed from the tank within 180 or 90 days
- Regulations address both batch and continuous flow processes.
- Records must be kept on site and readily available for inspections.
  - Ideally these records will be in close proximity to where hazardous waste is being accumulated in the tank, or if not practical (i.e., exposure to weather, physically infeasible, etc.) in a control room, or other central location at the facility.
- Bottom Line: Methods used to demonstrate that a tank has been emptied must be reasonable and easily discernible.

Tanks – Demonstrating Hazardous Waste Tanks are Emptied Every 90 or 180 Days

- **Batch Process:** The 90 or 180 day waste accumulation clock starts when waste first enters the tank. If tank fills up or waste stops being added on Day 30, and is emptied same day or next day, then generator has met the 90 or 180 day requirement. The next 90 or 180 day period begins when hazardous waste is added to the tank again.

- Inventory records typically must show the dates and quantity of hazardous waste entering the tank, as well as the dates the tank was emptied.

Tanks – Demonstrating Hazardous Waste Tanks are Emptied Every 90 or 180 Days

- **Continuous Flow Process:** Demonstrating tank has been emptied involves a generator identifying the estimated daily input or inflow of hazardous wastes into the tank, the estimated outflow from the tank, and the capacity of the tank to estimate how many days the hazardous waste will reside in the tank before exiting.

- **Example:**

  Tank capacity = 10,000 gallons
  Inflow = 1,000 gallons/day
  Outflow = 500 gallons/day
  Residence Time = 10,000/ (1000-500) or 20 days

New Recordkeeping Requirements: Why the Changes?

- EPA and states need to understand what has changed at facility since last inspected
- Allows inspectors to both better understand and verify activities at facility
- Improves oversight capability

New Reporting Requirements: What Changes?

SQG Re-notification

- § 262.18(d) Re-notification.
- (1) A small quantity generator must re-notify EPA starting in 2021 and every four years thereafter using EPA Form 8700–12. This re-notification must be submitted by September 1st of each year in which re-notifications are required.

- We expect many states to allow electronic reporting. EPA made the timeframe off-cycle with the Biennial Report to reduce the impact on state programs.
- Note: SQGs located in states with more frequent re-notification should comply with the state's timeframe.

SQG Re-Notification – Why the Change?

- Previously, SQGs were only required to notify once – when obtaining a RCRA Identification number.
- EPA and many states have outdated information since SQGs may have gone out of business, changed regulatory category, etc.
  - Many notifications occurred over 30 years ago
- Without accurate and up-to-date generator universe information, both EPA and states cannot conduct necessary oversight and program management activities.

SEND COMPLETED FORM TO: The Appropriate State or Regional Office.	United States Environmental Protection Agency **RCRA SUBTITLE C SITE IDENTIFICATION FORM**	
1. Reason for Submittal MARK ALL BOX(ES) THAT APPLY	**Reason for Submittal:** ☐ To provide an Initial Notification (first time submitting site identification information / to obtain an EPA ID number for this location) ☑ To provide a Subsequent Notification (to update site identification information for this location) ☐ As a component of a First RCRA Hazardous Waste Part A Permit Application ☐ As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment #_____) ☐ As a component of the Hazardous Waste Report (If marked, see sub-bullet below) ☐ Site was a TSD facility and/or generator of >1,000 kg of hazardous waste, >1 kg of acute hazardous waste, or >100 kg of acute hazardous waste spill cleanup in one or more months of the report year (or State equivalent LQG regulations)	

SQG must check this box to re-notify

New Reporting Requirements: What Changes?

LQGs Receiving Wastes from VSQGs

- LQGs must submit Site ID form:
  1. Notifying EPA/state that they are receiving hazardous waste from VSQGs under the control of same company, and
  2. Identifying in addendum each VSQG they are receiving waste from, including name and address of facility and contact name and telephone number.

- See next slides for mock up of Site ID form changes

E. **Additional Hazardous Waste Activities**

Y ☐ N ☐		1. **Episodic Generator** (SQG or VSQG generates from a planned or unplanned episodic event or one-time event and not from an on-going process). If "Yes", you must fill out the Addendum for Episodic Generation.
Y ☑ N ☐		2. **Notification of LQG Consolidation of VSQG Hazardous Waste** pursuant to 40 CFR 262.17(f). If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs.
Y ☐ N ☐		3. **LQG Closure**
	☐	a. Expected closure date: _____ mm/dd/yyyy
	☐	b. Date closed in compliance with the closure performance standards 40 CFR Part 262.17(a)(8): _____ mm/dd/yyyy
	☐	c. Requesting new closure date: _____ mm/dd/yyyy Note: You must provide an explanation as to why the additional time is required in item 13 below.

Check Y if LQG consolidating VSQG waste

ADDENDUM TO THE SITE IDENTIFICATION FORM: LQG CONSOLIDATION OF VSQG HAZARDOUS WASTE

ONLY fill out this form if:

- You are an LQG receiving hazardous waste from VSQGs under the control of the same person. Use additional pages if more space is needed.

VSQG 1		
a. EPA ID Number: 123456	b. Name: Facility X	
c. Street Address: 123 Main St.		
d. City: Generator City	e. State: Someplace	f. Zip: 11111
g. Contact Phone Number: 555-555-5555	h. Contact Name: Mr. Know it All	

VSQG 2		
a. EPA ID Number	b. Name	
c. Street Address		
d. City	e. State	f. Zip
g. Contact Phone Number	h. Contact Name	

New Reporting Requirements: Why the Change?

LQGs Receiving Wastes from VSQGs

- Reporting requirements provide oversight capability on part of EPA/states
  - Allows EPA/States to determine if LQG complying with rule's provisions and capable of managing additional amounts of hazardous waste

New Reporting Requirements: What Changes?

Episodic Generation

- When holding an episodic event, a generator must notify EPA/authorized state that they are doing so at least 30 days before the event (if planned) or within 72 hours (if unplanned)
  - Start and end date of episodic event
  - Reason for the event
  - Types of hazardous waste generated (federal and state waste codes)
  - Estimated amounts of hazardous waste to be generated
  - Emergency contact
  - Emergency phone number

E. **Additional Hazardous Waste Activities**

Y ☑ N ☐		1. **Episodic Generator** (SQG or VSQG generates from a planned or unplanned episodic event or one-time event and not from an on-going process). If "Yes", you must fill out the Addendum for Episodic Generation.
Y ☐ N ☐		2. **Notification of LQG Consolidation of VSQG Hazardous Waste** pursuant to 40 CFR 262.17(f). If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs.
		LQG Closure
	☐	a. Expected closure date: _____ mm/dd/yyyy
	☐	b. Date closed in compliance with the closure performance standards 40 CFR Part 262.17(a)(8): _____ mm/dd/yyyy
	☐	c. Requesting new closure date: _____ mm/dd/yyyy Note: You must provide an explanation as to why the additional time is required in item 13 below.

Check Y if VSQG or SQG holding an episodic event

ADDENDUM TO THE SITE IDENTIFICATION FORM: EPISODIC GENERATOR	

Event 1					
Type of Event ☑ Planned ☐ Unplanned					
Emergency Contact Phone (202) 555-5555			Emergency Contact Name Jane Smith		
Beginning Date _07/15/2017__ mm/dd/yyyy			End Date __09/01/2017____ mm/dd/yyyy		
Event Description Biennial tank cleanout					
Federal Hazardous Waste Codes					
State Hazardous Waste Codes					

Check type of event being held

Insert relevant waste codes

New Reporting Requirements: What Changes?

Biennial Reporting

- Clarifies in regulation that LQGs must complete and submit BR
- Requires LQGs to provide specific information found in EPA Form 8700–13 A/B rather than citing outdated information previously found at § 262.41 (a)(1)-(8)
  - Agency will issue FR notice, inform key stakeholders and place notice on EPA website if and when it modifies EPA Form 8700–13 A/B.
- Requires in regulation that LQGs to identify all of the hazardous wastes they generated throughout the year, not just for months generator was LQG
- Note: The Agency did not finalize proposal to change reporting periods.
- Requires facilities not storing hazardous wastes prior to recycling to complete BR

New Reporting Requirements: Why the Changes?

Biennial Reporting

- Previous regulation was not clear as to who should complete and submit a BR; (i.e., A generator …. must)
- EPA had modified information required to be reported in BR instructions over the years but not regulatory text – which is much more time consuming
- EPA was previously contradictory in what had to be reported; i.e., FR preamble (only months LQG) vs. BR instructions (all months of the year)
- Previously, EPA/states did not always receive BR reports from facilities not storing prior to recycling

1. **Reason for Submittal** (Select only one.)

☐	To provide an Initial Notification (first time submitting site identification information/to obtain an EPA ID Number for this location)
☑	To provide a Subsequent Notification (to update site identification information for this location)
☐	As a component of a First RCRA Hazardous Waste Part A Permit Application
☐	a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____)
☐	a component of the Hazardous Waste Report (if marked, see sub-bullet below)
	☐ Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)

Assuming facility has ID #, check this box

New Reporting Requirements: What Changes?

Facilities Not Storing Hazardous Wastes Prior to Recycling:
Changes to Site ID Form as part of BR submission

Check both boxes if a you are a recycler who doesn't store

Y ☑	N ☐	7. Recycler of Hazardous Waste
	☐	a. Recycler who stores prior to recycling
	☑	b. Recycler who does not store prior to recycling

New Reporting Requirements: What Changes?

Closure

- Closure of waste accumulation area – Require LQGs to place notice in their operating record within 30 days after closure identifying location of unit within facility; or meet closure performance standards and notify EPA.
- Closure of facility –
  - Notify EPA or authorized state no later than 30 days prior to closing facility, and
  - Notify EPA or authorized state within 90 days after closing facility that it has complied with closure performance standards or notify if it can't clean close
  - LQG can request extension but must notify EPA or authorized state within 75 days after closing facility

E. **Additional Hazardous Waste Activities**

Y ☐ N ☐		1. **Episodic Generator** (SQG or VSQG generates from a planned or unplanned episodic event or one-time event and not from an on-going process). If "Yes", you must fill out the Addendum for Episodic Generation.
Y ☐ N ☐		2. **Notification of LQG Consolidation of VSQG Hazardous Waste** pursuant to 40 CFR 262.17(f). If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs.
Y ☑ N ☐		3. **LQG Closure** If check yes, only fill out a, b, or c depending on your closure stage
	☑	a. Expected closure date: 06/26/2017 mm/dd/yyyy
	☐	b. Date closed in compliance with the closure performance standards 40 CFR Part 262.17(a)(8): _____ mm/dd/yyyy
	☐	c. Requesting new closure date: _____ mm/dd/yyyy Note: You must provide an explanation as to why the additional time is required in item 13 below.

New Reporting Requirements: What Changes?

Emergency Response

As part of regulations, requires LQGs to submit Contingency Plan Quick Reference Guide to local emergency responders

- **Contents of the Quick Reference Guide (eight elements)**
  - Types/names of hazardous waste and associated hazards
  - Estimated maximum amounts of hazardous wastes
  - Hazardous wastes requiring unique/special treatment
  - Map showing where hazardous wastes are 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 7/24-hour emergency telephone number(s)

Module 6 - Implementation and State Adoption

Contents of Module 6

- Revisions to § 262.10
- State Adoption
- Stringency of the Final Rule
- EPA Resources
- Contacts

Revisions to § 260.10

- § 260.10(a)-(l) has been revised in a variety of ways to clarify the structure of the regulations and remove obsolete provisions.
- Obsolete provisions being removed are—
  - § 262.10(c)—outdated provision from the early days of RCRA when the regulations distinguished between generators that shipped off-site for management and those that were also RCRA-designated facilities
  - § 262.10(j)—Laboratory XL regulations
- §§ 262.10(b), (d), and (l) are updated to reflect the new structure of the regulations, but still point generators to counting requirements, import and export requirements, and regulations for academic laboratories
- §§ 262.10(e), (f), (h), & (i) are unchanged

Revisions to § 262.10

§§ 262.1, 262.10(a) and 262.10(g)

- In this final rule, EPA outlines in regulatory language the distinction between independent requirements for all generators and conditions for exemption from the storage facility regulations for generators who are accumulating hazardous waste on site☐
  - This distinction has always existed in RCRA and it has been the Agency's position that generators not complying with a condition of a generator exemption would be considered an operator of a non-exempt storage facility☐
  - State regulatory agencies will continue to retain discretion and authority regarding bringing enforcement actions when non-compliance with conditions for exemptions have been detected☐
  - EPA and states have always had, and continue to have, enforcement discretion to bring charges and seek penalties that accurately reflect the seriousness of the violations and their potential for harm☐

Revisions to § 262.10

- § 262.1 contains definitions of conditions for exemption and independent requirement, used in § 262.10
- § 262.10(a)(1) lists the independent requirements for each generator category
- § 262.10(a)(2) points generators to the conditions for exemption for each generator category
- § 262.10(a)(3) states that hazardous waste must be sent to a designated facility (permitted TSDF or recycler)

Rule Process & Schedule

- Rule signed on October 28, 2016
- Publication in Federal Register—November 28, 2016 (81 FR 85732)
- Effective Date – 6 months from publication—May 30, 2017
- Rule goes into effect in Iowa, Alaska, most territories, and tribal lands on the effective date
  - EPA runs the RCRA program in those states, most territories, and tribal lands

State Adoption

- Authorized states run the RCRA program in their state and thus, will go through the state adoption & authorization process for this new RCRA rule
  - Authorized states will have to pick up the more stringent provisions, typically by July 1, 2018 (or July 1, 2019 if state law change is needed)*
  - Authorized states can choose to pick up the less stringent provisions and those provisions that are considered equally stringent

*Some states will pick up more quickly, especially those states that adopt by reference

Stringency of Final Rule

- More stringent provisions:
  - SQG re-notification
  - SAAs subject to incompatibility and emergency preparedness & prevention requirements
  - Identifying hazards of wastes being accumulated on labels and RCRA waste codes added prior to shipment
  - Notification of closure
  - Closure as a landfill for LQGs accumulating hazardous wastes in containers that cannot meet closure performance standards
  - Biennial reporting for whole year, not just months the generator is an LQG
  - Biennial reporting for recyclers who don't store prior to recycling
  - Quick Reference guide for contingency plans

- Less stringent provisions:
  - VSQG consolidation
  - Episodic generation
  - Waiver from 50-foot rule

EPA resources

Main generator website: https://www.epa.gov/hwgenerators

Generator Improvements Rule website: https://www.epa.gov/hwgenerators/final-rule-hazardous-waste-generator-improvements

We plan to add FAQs, a map showing when states adopt the new rule, and other implementation materials as needed.

We also plan to update existing guidance and resources as much as possible with new terms and citations.

What resources would be helpful

- What new resources would you like to see?
- What materials on our website do you use the most and want us to update with new terms and citations?
- Email us your suggestions!

Points of Contact

- Jim O'Leary (until the end of March 2017)
  - 703-308-8827
  - Oleary.Jim@epa.gov
- Kathy Lett
  - 703-605-0761
  - Lett.Kathy@epa.gov
- Mary Beth Sheridan
  - 703-308-4941
  - Sheridan.MaryBeth@epa.gov