HAZARDOUS WASTE

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Division of Waste Management

OVERVIEW

- Hazardous Waste Determination
- Regulation Interpretation
- Treatment On-site

Hazardous Waste Determinations

MAKING A HAZARDOUS WASTE DETERMINATION

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.

A FACILITY 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
  - Domestic sewage
- 40 CFR 261.4(b) identifies SW but are not HW
  - Household hazardous waste
- 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

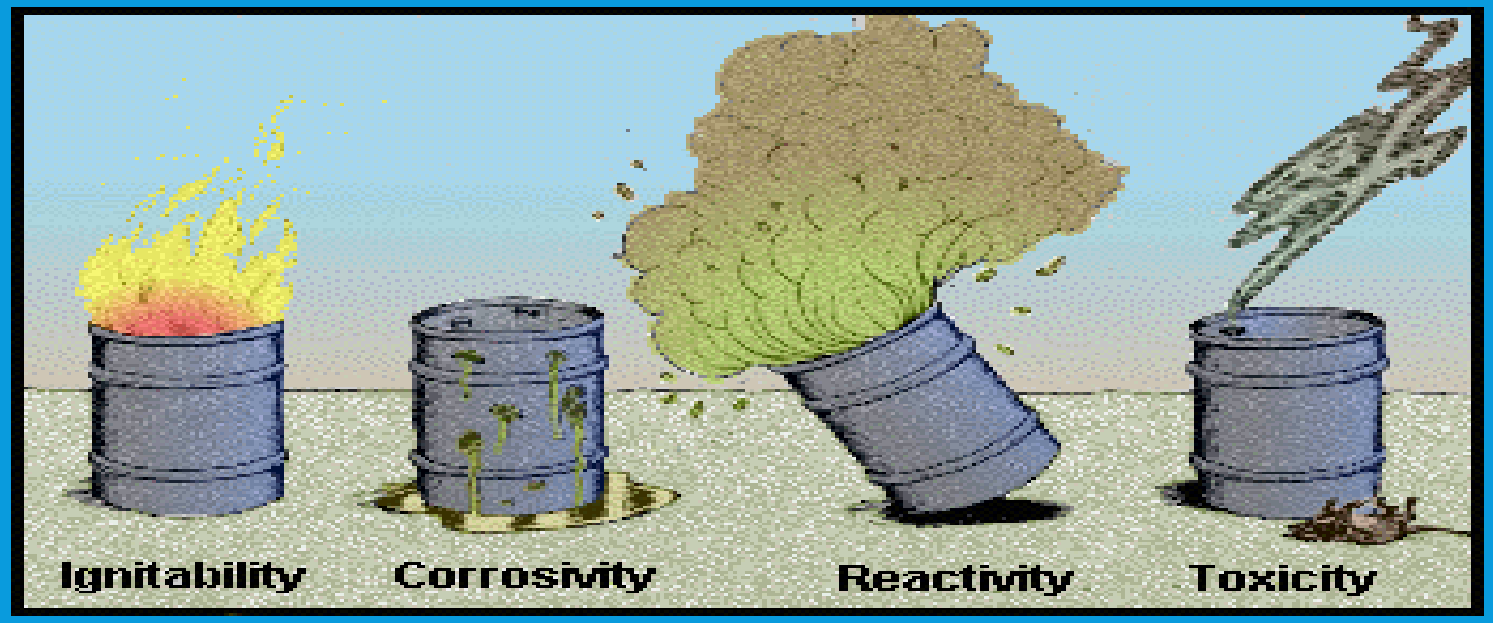
HAVE YOU GENERATED A LISTED HAZARDOUS WASTE?

- If the waste is not excluded, the facility **must then use knowledge/ SDS** 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 may include:

  - waste origin
  - composition
  - the process producing the waste

HAVE YOU GENERATED A CHARACTERISTICALLY HAZARDOUS WASTE?

- There are four hazardous waste characteristics



HAVE YOU GENERATED A CHARACTERISTICALLY HAZARDOUS WASTE?

- The facility 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 facility must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste.

(2) **When available knowledge is inadequate to make an accurate determination, the person must test 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

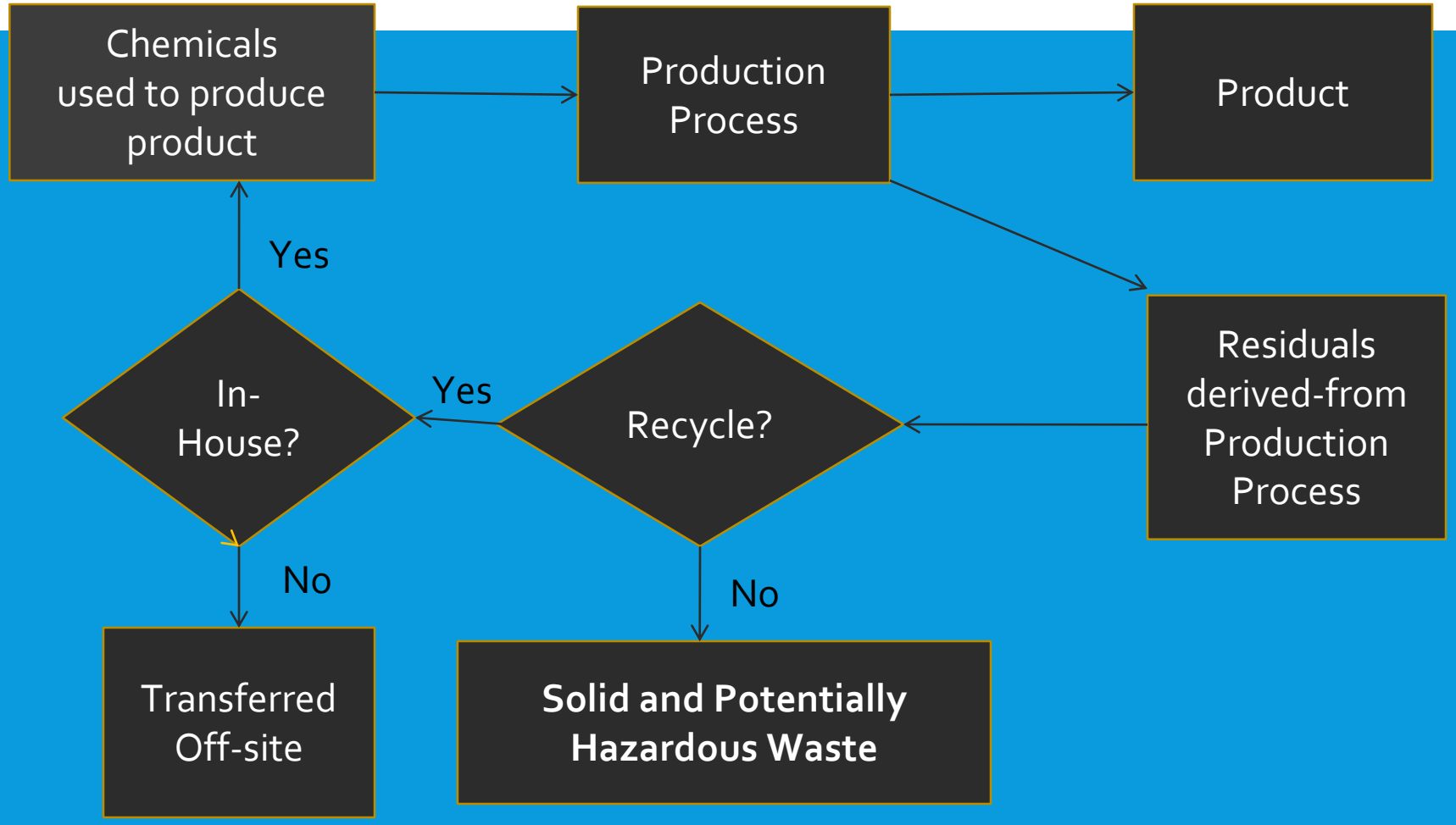
REMEMBER: A HAZARDOUS CHARACTERISTIC DETERMINATION MUST BE MADE REGARDLESS OF LISTING STATUS

Even if the waste <u>is listed</u>, 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

RECORDKEEPING ---MAINTAIN FOR 3 YEARS

- 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.
- 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

PUTTING THINGS IN CONTEXT



REGULATION INTERPRETATION

Facilities can request a regulatory interpretation concurrence.

Facility must present the argument for the regulatory interpretation

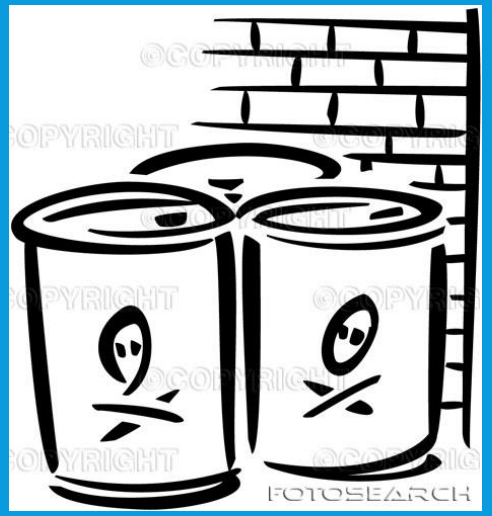
Hazardous Waste Branch will review and send a determination letter

TREATMENT ON-SITE

Definition of Treatment
How to Request Treatment On-Site
Treatment On-Site Requirements
Example of Treatments On-Site

WHAT IS A HAZARDOUS WASTE?

Simply defined, a hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment.



WHAT IS TREATMENT?

- Treatment is any method, technique, or process designed to change the chemical or physical composition of any hazardous waste so as to:
  - neutralize it
  - recover energy or material resources from it
  - make it non-hazardous
  - make it less hazardous
  - make it safer to transport, store, or dispose of
  - make it amenable for recovery or storage
  - or reduce it in volume

- Treatment is specifically defined in KRS 224.01-010(30).

CAN I DILUTE HAZARDOUS WASTE?

- Dilution of a hazardous waste is **Prohibited** to meet LDRs.
- Do not dilute residuals from treatment of a hazardous waste as a substitute for adequate treatment to achieve compliance with the LDRs.
  - Exception Example: hazardous waste sent to wastewater treatment plants regulated under the CWA.

EXAMPLES OF TREATMENTS

- **Physical**
  - Compaction
  - Bulb crushing
  - Dewatering
- **Chemical Treatments**
  - pH adjustment
  - Precipitation

HOW TO REQUEST TREATMENT ON-SITE?

HOW TO REQUEST TREATMENT ON-SITE

Answer the Questions on the TOS Application *How To request Treatment On-Site,* which is located on the HWB Website

↓

Fill Out a New Hazardous Waste Generator Registration indicating TOS

↓

Submit New Registration + the Answer To the TOS Application Requirements + $300 fee

TREATMENT ONSITE ALLOWED UNITS

- Containers
- Tanks

However the generator must:

- Have an approval letter
- Demonstrate compliance with all respective requirements on the KARs. Examples:
  - Contingency Plan
  - Personnel Training

APPLICATION REQUIREMENTS FOR TOS REQUESTS

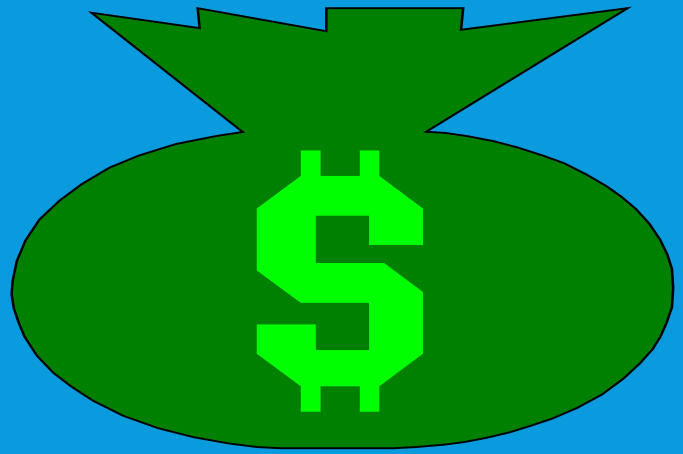
REQUIREMENTS FOR TOS REQUESTS

- All Treatment On-Site requests most follow the application requirement for Treatment On-Site checklist.
- This checklist can be found at our website

http://waste.ky.gov/HWB/Pages/HWBforms.aspx

TREATMENT ON-SITE FEES

- $300 to register for treatment on-site in addition to any other fees.
- VSQG are required to register as a TOS each year and pay the fees if they have a treatment on-site



ARE RECYCLING UNITS TREATMENT UNITS?

- Recycling process may be a treatment process; however, the recycling process may be exempt from hazardous waste regulation
- Storage of your hazardous waste before recycling is regulated, and any wastes derived from the recycling of listed hazardous waste are considered listed hazardous waste.
- The facility must determine if there is a new waste generated from the recycling process

FOUR PERMIT-EXEMPT OPTIONS FOR TREATMENT

- Four additional mechanisms that facilities may use to escape RCRA permitting and Treatment On-site approvals:
  - Elementary neutralization units,
  - Totally Enclosed Treatment Facilities,
  - Adding absorbents to wastes
  - Immediate responses.

LUNCH BREAK

WHAT'S NEW

Updated Regulations

Generator Improvement Rule

E-Manifest

Satellite Accumulation Areas

Timeframes

Forms and Fees

KENTUCKY HAZARDOUS WASTE REGULATIONS

- Regulations updated December 7, 2017
- Current with Federal regulations
- Reduced from 165 to 5 in 401 KAR Chapter 39
- Incorporates the federal CFR

GOALS OF THE HAZARDOUS WASTE GENERATOR IMPROVEMENT RULE

- 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

GENERATORS

- 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)

COUNTING AND HAZARDOUS WASTE GENERATOR CATEGORIES

HAZARDOUS WASTE COUNTING

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 ➢ 2.2 lbs	Any amount	Any amount	**Large quantity generator**
Any amount	≥ 1,000 kg 2200 lbs	Any amount	**Large quantity generator**
Any amount	Any amount	➢ 100 kg ➢ 220 lbs	**Large quantity generator**
≤ 1 kg 2.2 lbs	➢ 100 kg and < 1,000 kg ➢ 220 lbs and <2200 lbs	≤ 100 kg 220 lbs	**Small quantity generator**
≤ 1 kg 2.2 lbs	≤ 100 kg 220 lbs	≤ 100 kg 220 lbs	**Very small quantity generator**

MIXING

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) as long as the mixture does not exhibit one or more of the characteristics of a hazardous waste.
- If the resultant mixture does exhibit a hazardous waste characteristic, the mixture is a newly generated hazardous waste.
  - 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.

(262.13(f)(1))

SQGS AND LQGS MIXING SOLID WASTE WITH HAZARDOUS WASTE

- **Mixtures of hazardous waste and solid waste at SQGs and LQGs are subject to:**
  - 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.

WASTE IDENTIFICATION & COUNTING
HOW TO COUNT HAZARDOUS WASTE?

- **Do NOT count the following wastes:**
  - Hazardous waste in active tanks, vessels, pipelines, and manufacturing process units
  - Analytical & Treatability samples
  - "Recyclable materials" in 40 CFR 261.6(a)(3)
  - Residues in RCRA empty containers
  - As-generated used oil
  - Universal wastes
  - TSCA PCB wastes
  - Waste managed without prior storage in onsite: elementary neutralization unit; wastewater treatment unit, totally enclosed treatment facility, and/or exempt recycling units.
  - Spent materials recycled onsite that have been counted once that month
  - Acute hazardous wastes that are counted and may be managed separately from other hazardous wastes

MARKING AND LABELING

MARKING AND LABELING

- 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 containment buildings, the generator can keep this information in logs or records near the accumulation unit (waste piles, etc.)

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

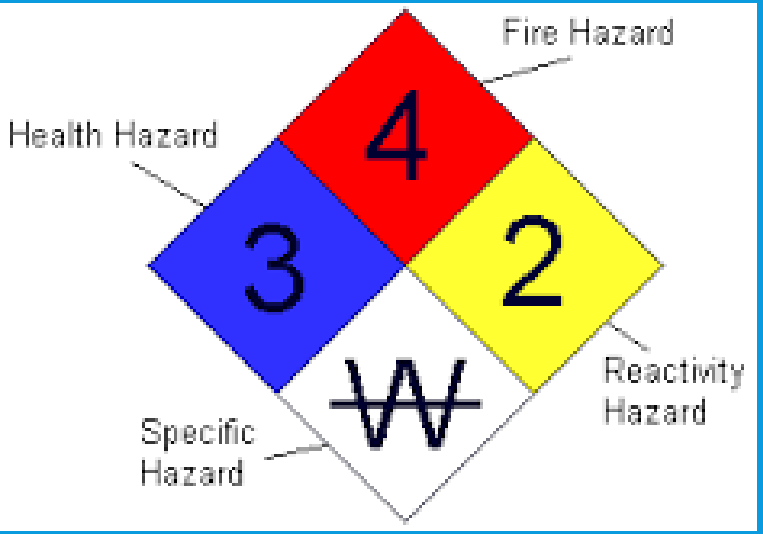
- Hazard communication consistent with DOT (49 CFR part 172 subpart E – labeling or subpart F – placarding)

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

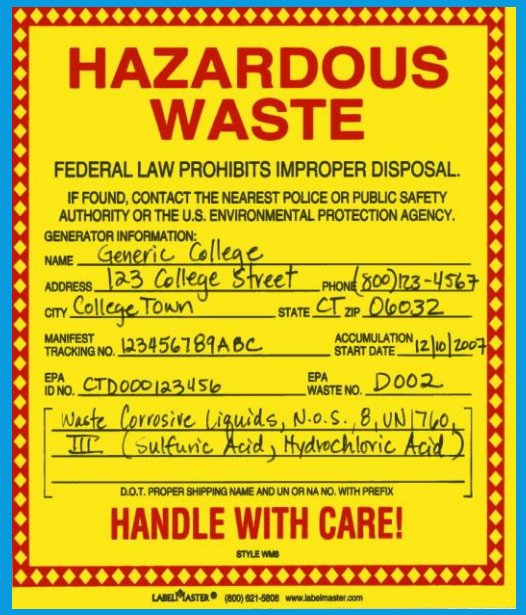


MARKING AND LABELING

- 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

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



REVISIONS THAT APPLY TO VERY SMALL QUANTITY GENERATORS

- 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

PREVIOUS REQUIREMENTS FOR EPISODIC GENERATION

- Previous RCRA rules lacked 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

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

- Both VSQGs and SQGs must notify about episodic events using Site ID from (EPA form 8700-12) and the Kentucky Addendum DEP 7037A
- 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
- 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.

EPISODIC GENERATION

Hazardous Waste Accumulation Standards

<u>SQGs</u>

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 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

- state must be notified within 72 hours by phone or email, followed by submittal of 8700-12 and the Kentucky Addendum 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 2 (CONTINUED)

- 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 clean up 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
- 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 Annual Report

- We did not extend this provision to SQGs due to more complicated implementation issues but an SQG can participate <u>if</u> 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 Annual Report for the state.

VSQG WASTE CONSOLIDATION

- 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

CHANGES TO SQG AND LQG REQUIREMENTS

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

SATELLITE ACCUMULATION AREAS (SAA)

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 Central Accumulation Area (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

WAIVER TO 50-FOOT REQUIREMENT

- 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.

DRIP PADS AND CONTAINMENT BUILDINGS

- Clarifies that SQGs may accumulate hazardous waste on drip pads and in containment buildings, provided they:
  - Meet the standards found in Part 265, subparts W and DD, for drip pads and containment buildings, respectively
  - Meet all of the conditions specified in § 262.16 for SQGs accumulating hazardous wastes in these units (§ 262.16(b)(4))
- 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

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

- 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?

- Consolidates closure requirements in one place
- Requires LQGs to notify EPA when closing a facility and/or accumulation unit
- Requires LQGs accumulating hazardous wastes in containers to close as a landfill if unable to meet closure performance standards; i.e., they can't clean close
- Clarifies that closure does not apply to SAAs

CLOSURE NOTIFICATION

Requires LQGs to notify when closing a facility via Site ID and Kentucky Addendum form

- 30 days ***prior*** to closing facility and
- 90 days ***after*** closing facility and complied with closure performance standards
- Extension requests must be submitted within 75 days after closing

- Provides option of LQG closing waste accumulation unit to:
  - Place a notice in operating record within 30 days ***after*** closing waste accumulation unit and addressing closure when facility closes, OR
    - (Notice can be removed from the operating record if unit going back into service)
  - Notify they have met closure performance standards for containers, tanks, and containment buildings (§262.17(a)(8)(iii)) or closure performance standards for drip pads (§262.17(a)(8)(iv))
    - 90 days ***after*** closure via Site ID form 8700-12

(§ 262.17(a)(8))

CLOSURE REQUIREMENTS

- Consolidates performance standards found in § 265.111 and §265.114 into LQG section (§262.17(a)(8)(iii)&(iv)) and clarifies that these units are subject to clean closure standards
- LQGs for containers, tanks, and containment buildings must:
  1. Minimize and control post-closure care releases of hazardous waste and constituents to the environment
  2. Remove or decontaminate all contaminated structures, equipment, and soils
  3. Manage any hazardous waste generated in the process of performing closure according to Subtitle C
  4. If the LQG cannot clean close then they must close as a landfill and meet the requirements of Subparts G and H of 40 CFR 265
- Note: LQG drip pad operators are subject to 1 and 3 above and 265 Subpart W in lieu of 40 CFR 265 Subparts G and H

MODULE 5 – RECORDKEEPING AND REPORTING

- Recordkeeping
- Reporting
- Site ID Walk Through

SUMMARY OF NEW RECORDKEEPING REQUIREMENTS

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

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

NEW RECORDKEEPING REQUIREMENTS: WHAT CHANGES? (CONT)

- 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.

NEW RECORDKEEPING REQUIREMENTS: WHAT CHANGES? (CONT)

- 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

SUMMARY OF NEW REPORTING REQUIREMENTS

- New Reporting Requirements
  - LQGs receiving wastes from VSQGs under control of same company
  - Episodic generation
  - Annual Reporting for Facilities Not Storing
  - Closure – facility and/or waste accumulation units
  - Quick response guide (Summary of contingency plan)

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 **SQG must check this box to re-notify**	**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)

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

Check Y if LQG consolidating VSQG waste

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.

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

Check Y if VSQG or SQG holding an episodic event

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.

ADDENDUM TO THE SITE IDENTIFICATION FORM: EPISODIC GENERATOR	

Episodic Event					
Type of Event ✓ ☐ Planned ☐ Unplanned			Check type of event being held		
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					
				Insert relevant waste codes	
State Hazardous Waste Codes					

NEW REPORTING REQUIREMENTS: WHAT CHANGES?

Annual Reporting under Kentucky regulations

- Requires in regulation that LQGs identify all of the hazardous wastes they generated throughout the year, not just for months generator was LQG
- Requires LQGs consolidating VSQG waste to identify volumes and types of wastes but with new source code

Recyc

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	
☐	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 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 ☐	6. 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

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)

MANIFEST REVISIONS

- Manifests are key element of RCRA's "cradle to grave" regulatory system
- Some fixes are needed for a variety of reasons:
  - Inconsistent state requirements
  - Paper-based system is inefficient, costly
  - Not integrated with BRS reporting system
  - Real time tracking of shipments isn't feasible

MANIFEST REVISIONS

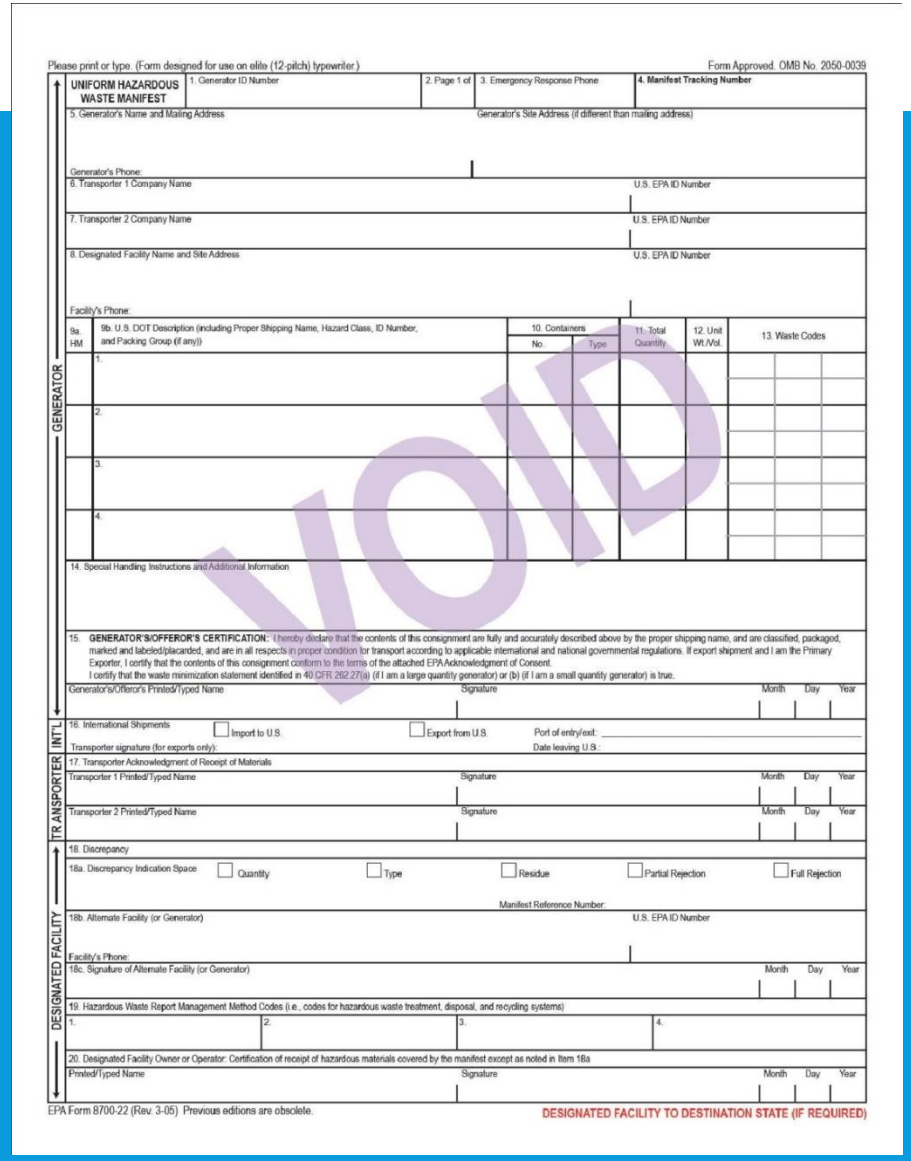
- Decision was made to separate the revisions into two rules so form revisions were finalized first, e-manifests are on separate track
- Manifest Form Revisions Final Rule published March 4, 2005 (70 FR 10776)

MANIFEST REVISIONS

- E-manifest provisions more controversial, pose technical and budget issues
  - Electronic signatures
  - System security
  - Centralized or decentralized system
  - Need for new appropriations or user fee authority to fund e-manifest

THE UNIFORM HAZARDOUS WASTE MANIFEST

- Uniform Hazardous Waste Manifest is used to track the movement of hazardous waste from the point of generation to the point of ultimate treatment, storage, or disposal (2005).
- EPA Form 8700-22



Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number

5. Generator's Name and Mailing Address | Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name | U.S. EPA ID Number

7. Transporter 2 Company Name | U.S. EPA ID Number

8. Designated Facility Name and Site Address | U.S. EPA ID Number

Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1.					
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month Day Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month Day Year

Transporter 2 Printed/Typed Name | Signature | Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name | Signature | Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

VOID

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

THE UNIFORM HAZARDOUS WASTE MANIFEST

- Accountability
- Manifests must accompany wastes on public roads
- Generator and authorized TSD facility must be identified
- Wastes must be packaged and marked to comply with DOT regulations
- Failure to receive completed manifest requires filing an exception report
- Generators must certify that they have a waste minimization program in place

THE UNIFORM HAZARDOUS WASTE MANIFEST

Required Information

- Name, address, and EPA ID number of the hazardous waste generator, transporters, and designated facility
- DOT description of the waste's hazards
- Quantities of the wastes transported and container type.

THE UNIFORM HAZARDOUS WASTE MANIFEST

Required Information

- Each time a waste is transferred, the manifest must be signed to acknowledge receipt of the waste.
- Once the waste is delivered to the designated facility it must be signed and a copy of the manifest is returned to the generator.
- To ensure the safe transport of hazardous waste, a generator may offer waste only to a transporter has an EPA ID number

THE UNIFORM HAZARDOUS WASTE MANIFEST

- Each manifest also contains a certification that states:
  - The shipment has been accurately described and is in proper condition for transport.
  - The generator has a waste minimization program.
  - The treatment, storage, or disposal method chosen by the generator is the most practicable method currently available that minimizes the risk to human health and the environment.

FORMS AND FEES (WORD DOCUMENT)

FINAL RULE

- 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
- Annual reporting for whole year, not just months the generator is an LQG
- Annual reporting for recyclers who don't store prior to recycling
- Quick Reference guide for contingency plans

FINAL RULE

- 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

EPA plans to update existing guidance and resources as much as possible with new terms and citations, starting with the Hazardous Waste Generator Regulations: A User Friendly Reference Document found at

https://www.epa.gov/hwgenerators/hazardous-waste-generator-regulations-user-friendly-reference-document